Service Bulletin

JAGUAR Daimler

Date JANUARY 1985
Sheet 1 of 3
Bulletin JD.01/85

ITEM 01

12 OIL PRESSURE SWITCH — **ALL MODELS**

During investigations into oil leakage from the oil pressure switch, it has been noted that non approved pressure switches are being used. Please note that Unipart switch GPS 117 IS NOT APPROVED for fitment on Jaguar vehicles and must not be used as the hexagon size prevents secure fitment in Jaguar applications.

The only oil pressure switch specified and approved for use on current Jaguar vehicles is C 42200.

ITEM 02

26 COOLANT HEADER TANK — **XJS 3.6/XJ-SC 3.6**

Following reports of coolant loss from the header tank filler neck joint, all header tanks are now pressure tested after stove enamelling. The solder specification has also been improved to prevent any possibility of the solder melting during the stove enamelling process. Header tanks are quality assured from VIN 119730 and Parts stocks are all to the latest condition.

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ITEM 03

26 THERMOSTAT HOUSING GASKETS S.III/XJS HE

To overcome isolated instances of coolant loss from the thermostat housing, new gaskets have been introduced on 6 cyl (XK) and V12 engines. The new part numbers are detailed below:

Model	Description	Part No.
XJ6 3.4, Limo	Thermostat Housing Gasket	EAC 7044
XJ6 4.2	Thermostat Housing Gasket	EAC 7046
XJ6 3.4, 4.2, Limo	Water Outlet Pipe Gasket	EAC 7045
XJ12, XJS HE	Thermostat Cover Gasket LH	EAC 7047
XJ12, XJS HE	Thermostat Cover Gasket RH	EAC 7048

The bolt tightening torques are also revised to:

6 cyl (XK)	23 – 28.5 Nm	(17–21 lb/ft)
V12	10.8 – 12.2 Nm	(8–9 lb/ft)

The improved gasket and revised tightening torques were introduced at the following engine numbers:–

XJ6 3.4	8A 15616
Limo	7M 4974
XJ6 4.2	8L 173271
XJ12	7P 51620
XJS HE	8S 32778

ITEM 04

57 POWER ASSISTED STEERING RACK S.III/XJS

Continual monitoring and examination of returned Power Assisted Steering racks has resulted in the following improvements:

1. To prevent rack bar contamination due to the use of spurious lubricants during Service, extensive testing by Jaguar and Adwest has resulted in the deletion of the rack damper grease nipple. Greasing of the rack damper during Service is NOT necessary as initial greasing by the manufacturer is considered sufficient.

2. To alleviate the possibility of scoring the rack bar with the steering alignment tool, when checking the steering geometry, a deeper and chamfered centralising pin hole has been introduced.

3. A new tangential valve and torsion bar has been introduced.

These improvements have been implemented on steering racks built after date code 4L 0001 and were introduced progressively on to Jaguar production from VINS:

413000	S.III
120500	XJS

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ITEM 05

70 BRAKE BEDDING IN PROCEDURE — ALL MODELS

With the recent introduction of semi-metallic brake linings, it is important that all Service Personnel are aware of the optimum procedure for the 'bedding-in' of these linings. Details are as follows:

In order to ensure optimum brake performance and refinement throughout the life of the brake friction linings and brake discs, it is essential that a controlled brake bedding procedure is undertaken during the early life of the friction linings.

The procedure used should ensure that the friction linings quickly achieve normal operating conditions as a result of low energy applications, without being subjected to high energy input levels.

The procedure recommended for the first 320 km (200 miles) is of deliberate, frequent light application wherever possible, similar to that used during normal town driving. On open road driving the above conditions have to be simulated. Try NOT to brake from speeds in excess of 96 km/h (60 mph); reduce speed by short brake applications, i.e. 80–65 km/h (50–40 mph) at intervals of approximately 1.5 km (1 mile).

This procedure will ensure satisfactory brake lining/disc conditioning, and lead to optimum brake life and performance.

ITEM 06

74 ALLOY WHEELS — S.III/XJS

Reports of difficulty in removing alloy wheels due to corrosion between the mating faces of the wheel and the hub spigot has resulted in a greasing operation being introduced on production.

The hub spigot bore of the wheel is now coated with Shell Retinax 'A' grease. This was introduced at VIN Nos:

411159	S.III
119708	XJS

ITEM 07

76 AUTOMATIC REAR SEAT BELTS — XJS (AUSTRALIA)

All XJS vehicles landed in Australia after January 1st 1985 will incorporate 3 point inertia reel rear seat belts.

ITEM 08

82 AIR CONDITIONING SERVO UNIT — S.III/XJS HE/XJ-S 3.6/XJ-SC 3.6

Further to Service Bulletin JD.11/84 – Item 85 Reference Step 3. To prevent excessively low pressure being generated in the air conditioning system under certain operating conditions, the servo motor unit Ranco override function has now been deleted. Units to the modified condition were introduced from VINs:–

411931	S.III
120267	XJS HE/XJ-S 3.6/XJ-SC 3.6

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ITEM 09

82 RECEIVER DRIER — S.III 4.2 (AIR CON. MODELS ONLY)

To improve the efficiency of the Receiver Drier, the Drier has been repositioned to enable maximum refrigerant flow through the internal pick-up pipe.

This repositioning has resulted in the sight glass now being on the left hand side and in the vertical position. This change was introduced at VIN 412060.

When fitting replacement Receiver Drier Bottles on Series III 4.2 Models (prior to the above VIN) the Receiver Drier should be fitted as described above.

The fitment of the Receiver Drier Bottle CAC 1881 on Series III 5.3/XJS HE and XJS 3.6 Models remains unchanged, i.e. the Drier mounted with the sight glass on the right hand side and the sight glass angled approximately 15 degrees rearwards.

ITEM 10

86 DOOR POCKET WARNING LAMPS — S.III/JAGUAR VDP & SOVEREIGN ONLY

During the winter period, especially in markets where the ambient temperatures are particularly severe, it is possible for the electric aerial mast to freeze temporarily. Isolated incidences have been reported of the main circuit fuse blowing through the aerial operation being impaired.

Should this occur it is possible for the door casing puddle lamps to illuminate with the doors closed, and in some cases, due to the problem going unnoticed, can result in the battery discharging when the vehicle is parked.

Through subsequent investigations, the cause has been traced to a feed back circuit developing through the interior light circuit which is also protected by the same fuse link.

Fuse No. 3 Main Fuse Box – LHD
Fuse No. 13 Auxiliary Fuse Box – RHD

To prevent this involuntary illumination and possible battery discharge, modified bulkhead harnesses incorporating diode protection on the interior light circuit will shortly be introduced. Introductory VINs will be issued in a further Service Bulletin.

However should this problem be encountered on vehicles already in Service, the following modification may be implemented:

Labour allowance 0.45 hrs
Complaint Code 7K7S

PARTS REQUIRED

Description	Part No.	Code (see Fig. 2)
1 off Lucar Connector	GHF 2051	A
1 off Lucar Connector	GHF 2060	B
2 off Lucar Insulation Sleeve	GHF 2151	C
1 off Diode	AAU 5034	D

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MODIFICATION PROCEDURE

1. Disconnect the battery.
2. Remove the passenger side 'A' post lower trim panel to expose the lower bulkhead/door harness (See Fig. 1). Passenger side RHD is shown, LHD is symmetrically opposite.

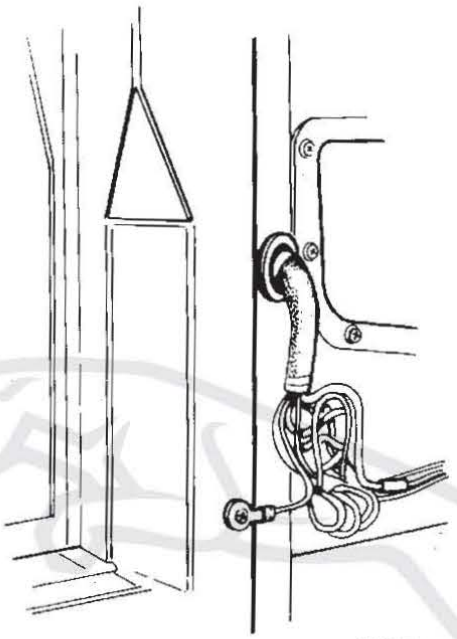

FIG. 1 JSI-281

3. Locate the interior door switch purple/white (PW) cable and cut.
4. Fit insulations sleeves (C, Fig. 2) and crimp/solder Lucar connector (A and B, Fig. 2), to the purple/white (PW) cable. Connect diode unit (D, Fig. 2) in circuit and strap or tape to the harness.

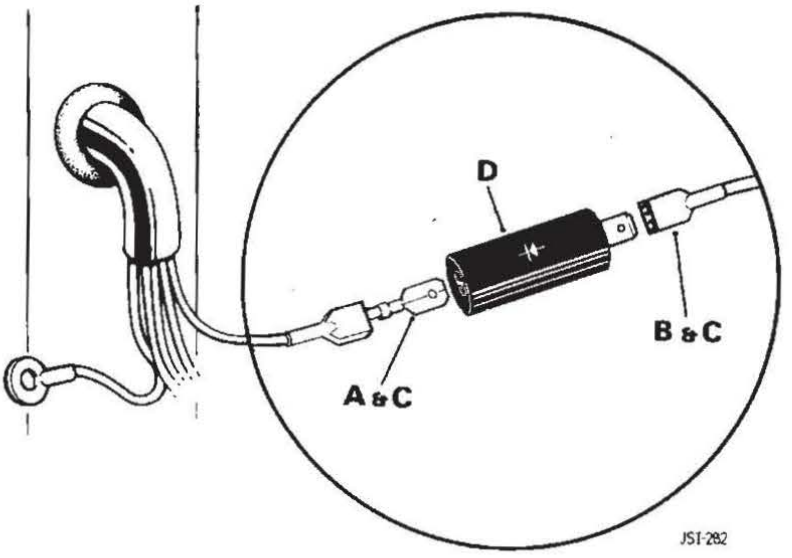

FIG. 2 JSI-282

5. Refit the 'A' post lower trim panel and reconnect the battery.

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86 IGNITION COIL S.III 4.2

To improve the ignition performance on S.III 4.2 Models, a new Ducellier coil with ballast resistor, together with a modified amplifier and engine harness have been introduced from Engine No:–

8L 173271

Interchangeability with the previous ignition system is affected.

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ITEM 42

57 OIL FILLED P.A.S. RACKS **S.III/XJS**

Power assisted steering racks are now oil filled by the supplier with Shell Spirax EP 80 oil. This has replaced the Shell Retinax 'A' grease fill. Racks to this condition were introduced on Jaguar production at the following VIN's:

426768 – S.III
123784 – XJS

It is important that when investigating power steering fluid leakage, this lubricating oil is not confused with the hydraulic fluid, as under normal operating conditions a small amount of the oil will be present in the steering rack gaiters. If any oil is lost from the gaiters, then an equal amount to that lost should be added to the gaiter prior to the refitment of the gaiter clips.

It is not necessary under normal circumstances to add oil to the rack during Service, unless a complete overhaul of the rack is undertaken. The total oil capacity of the steering rack is 0.19 litres.

ITEM 43

82 AIR CONDITIONING IN-CAR SENSOR **XJS-HE/XJ-S 3.6/XJ-SC 3.6**

Reference Service Bulletin JD 09/84 Item 77. XJS-HE/XJ 3.6 Models incorporating blown aspiration systems were introduced at VIN 123935.

ITEM 44

84 WINDSCREEN WIPER MOTOR **S.III**

During the pre-delivery inspection (PDI) of S.III Models, incidences have been reported of the wiper motor failing to operate when initially switched on. However, if the control switch is left in the 'on' position, the wipers eventually commence operating.

Investigations have traced the fault to an intermittent poor connection between the wiper motor harness multiplug and the bulkhead sandwich block connector.

Should Dealers encounter this problem, the connectors in question should be checked for continuity and tightened accordingly if found loose. Production fitment has been confirmed satisfactory and assured from:

VIN 425848

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86 ELECTRIC DOOR MIRRORS **S.III/XJS HE/XJ 3.6 MODELS**

A number of electric door mirrors, returned under warranty as being inoperative, have been found to have only the mirror glass section detached from one or more of the motor drive levers.

By simply relocating and securing the detached levers the mirror operation has been returned to normal.

This condition is most evident on export models, where the fuse controlling the mirror circuit has been removed for transit purposes and manual adjustment of the mirror glass has caused the detachment.

If, when investigating inoperative electric door mirrors it is found that the mirror glass has become detached, it can easily be replaced using the following procedure.

Align the three ball end operating arms (A, Fig. 1) with the three sockets on the mirror glass (B, Fig. 1) and push each one fully home in the numbered sequence (1, 2, 3, Fig. 1).

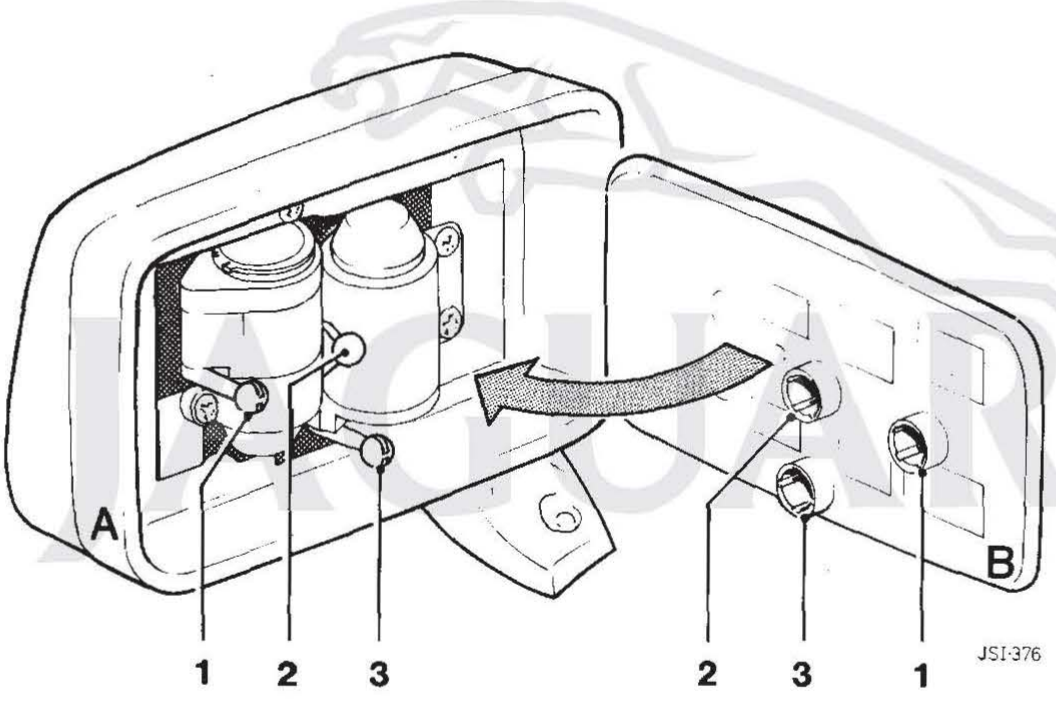

FIG. 1

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Daimler

Date: November 1985
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ITEM: 75

03 FUEL AND IGNITION SYSTEM REPAIR TIMES — S.III V12/XJS V12

The following repair times have been published for 12 cyl. engined vehicles following the production fitment and retrospective fitment of the restyled fuel system. Where new numbers have been issued, insert the relevant descriptions and repair times into the repair time schedules. Where numbers are duplicated, i.e. 19-60-12 Injector - Engine Set - Renew, REPLACE the existing repair time with the new repair time.

Operation Number	Description	Time (Hrs) S.III	XJ-S
19-20-15	Auxiliary Air Valve Feed Hose - Renew	0.25	0.25
19-22-01	Hot Start Switch - Renew	0.25	0.25
19-40-56	Hose - Fuel Cooler to Fuel Return Pipe - Renew	0.55	0.55
19-40-62	Hose - Fuel Feed Pipe to Pressure Regulator Valve - Renew	0.55	0.60
19-40-63	Hose - RHD Pressure Regulator Valve to Fuel Rail - Renew	0.30	0.30
19-40-64	Hose - LDH Pressure Regulator Valve to Fuel Rail - Renew	0.35	0.35
19-40-78	Hose - Pressure Regulator Valve to Fuel Cooler - Renew	0.60	0.60
19-45-09	Pressure Regulator Valve - LHD - Renew	0.45	0.45
19-45-10	Pressure Regulator Valve - RHD - Renew	0.35	0.35
19-45-13	Pressure Regulator Valve - Engine Set - Renew	0.55	0.55
19-45-18	Pressure Regulator Valve Vacuum Elbow - Renew	0.25	0.25
19-45-19	Pressure Regulator Valve Vacuum Hose - Renew	0.25	0.25
19-60-12	Injector - Engine Set - Renew	2.50	2.50
19-60-14	Fuel Rail and Injector Assembly - Renew	1.50	1.50
19-60-15	Injector - Renew	1.55	1.55
19-60-16	Injector - Extra Each - Renew	0.10	0.10
86-35-10	Distributor Cap - Renew	0.80	0.80
86-35-23	Distributor Breather Filter - Renew	0.25	0.25
86-35-32	Ignition Coil - Renew	0.40	0.40

No other repair times are affected.

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ITEM: 76

S.III V12/XJS V12

12 AUXILIARY AIR VALVE (JAPAN/CANADA/AUSTRALIA)

V12 vehicles supplied to the above markets are now fitted with auxiliary air valve EAC 2273 in place of EAC 4438. This is to prevent the possibilty of engine stall during the warm up period and was introduced at Engine Numbers:

7P 54121 - S.III
8S 37841 - XJS

ITEM: 77

19 FUEL PRESSURE TEST S.III V12/XJS V12

Due to the redesign of the V12 fuel injection rail and the introduction of union connections on the fuel hose assemblies, it is necessary to modify the Epitest fuel pressure gauge before it can be used on the latest fuel rail.
The modification to the gauge should be carried out as follows:

1. Remove the two short hoses (1 Fig. 1) from the existing gauge.

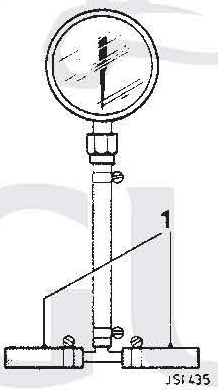

FIG 1

2. Obtain fuel hose assembly Part No. EAC 8088 from parts stock and cut the hose into two equal lengths of 60 mm (2.36 in) (Fig 2). Blow through the hose assembly to ensure all cutting debris is clear.

X = 60 mm (2.36 in)

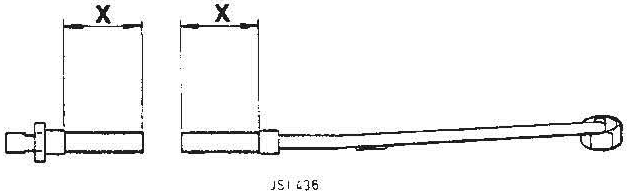

FIG 2

3. Insert the tee piece (1 Fig. 3) in the open ends of the hose (2 Fig. 3) and secure with hose clips Part No. EAC 3215/2. Tighten the clips to a torque of 17 - 21 lbf/ins (1.92 - 2.37 Nm).

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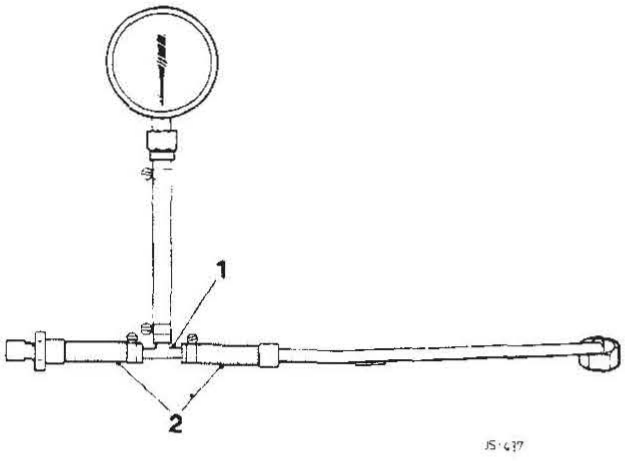

FIG. 3

This modified pressure gauge must now be used to check fuel pressure when required, using the following procedure:

1. Depressurise the fuel system.

2. Disconnect the battery.

3. Disconnect the fuel rail to the outlet pressure regulator hose assembly (EAC 8088) at the rail and regulator and remove the hose assembly (1. Fig. 4). Ensure that any fuel spillage is absorbed using suitable cloths.

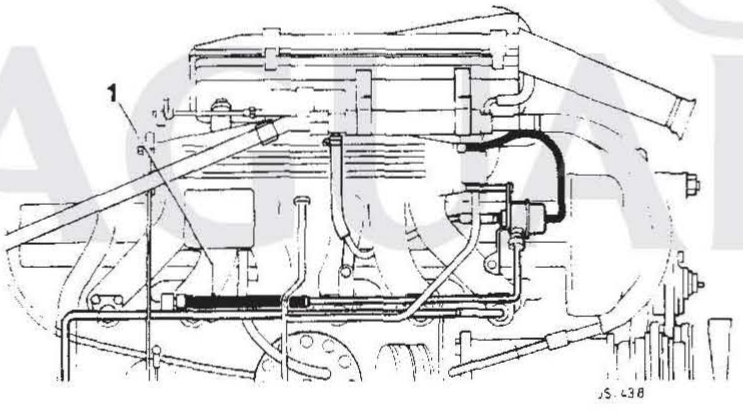

FIG 4

4. Replace the hose assembly with the modified pressure gauge. Tighten the connections to a torque of 9 - 11 lbf/ft (12.5 - 15 Nm).

5. Reconnect the battery.

6. Carry out the pressure test.

REFIT:

1. Depressurise the fuel system.

2. Disconnect the battery.

3. Remove the modified pressure gauge and replace with the original hose assembly - tighten the union connections to a torque of 9 - 11 lbf/ft (12.5 - 15 Nm).

4. Reconnect the battery.

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19 ELECTRONIC FUEL INJECTOR RENEWAL S.III V12/XJS V12

Due to the introduction of the square section fuel rail on V12 engines, the following procedure must now be used when replacing fuel injectors:

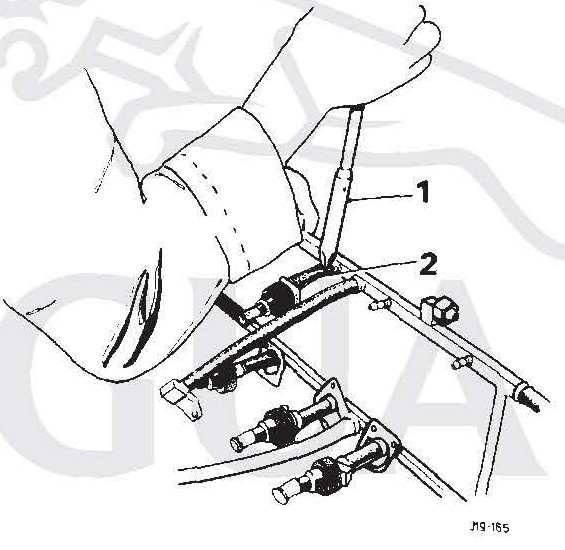
1 Depressurise the fuel system

2 Disconnect the battery

3 Remove the fuel rail and injector assembly.

NOTE: Remove the rail and injector assembly to a suitable workbench to carryout the injector replacement.

4 Using a hot soldering iron (1 Fig. 1) at the top of the hose (2 Fig 1) burn through the hose until it is possible to remove the hose and injector assembly.



5 Remove the fuel rail collar.

IMPORTANT: Under no circumstances should the hose be cut as damage to the fuel rail stub may arise, leading to subsequent fuel leakage.

NOTE: Ensure that a note is made of the position of individual injector harness connectors and clamps prior to removal of the injector as their positions vary.

6 Fit Service Tools JD 116 (1 Fig. 2) to the replacement injector and hose assembly (2 Fig. 2).

7 Ensure that the face of the tool is located against the injector collar, and that an injector clamping plate is correctly located prior to fitment.

8 Push the assembly onto the rail stub, ensuring that the hose is fully seated in the hose to rail collar (4 Fig. 2) N.B. 3 Fig. 2 denotes fuel rail, and that the harness connectors and clamping plates are in the correct positions.

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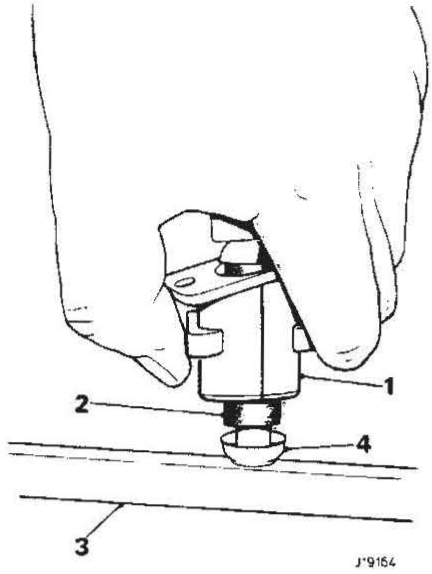

NOTE: The tool is not required on the longer hoses (1A and 1B injectors) as they can be fitted by hand.

9 Refit the rail and injector assembly.

10 Reconnect the battery.

11 Run the engine and check the hose integrity.

IMPORTANT: The torque figure for all screw type connections on the engine fuel injection system is 9 - 11 lbf/ft (12.5 - 15 Nm). The torque figure for clip type connections on the engine fuel injection system is 17 - 21 lbf/ft (1.92 - 2.37 Nm).

LABOUR ALLOWANCE

When changing injectors the following repair operation times must be used:

19-60-12	Complete injector set renewal	2.50 hrs.
19-60-15	One injector renewal	1.55 hrs.
19-60-16	Each subsequent injector renewal	0.10 hrs.
19-60-14	Complete fuel rail and injector renewal	1.50 hrs.

HOSE REPLACEMENT

When engine bay hose connections which incorporate clip EAC 3215/2 are disconnected, then the subject length of hose must be replaced with a new hose assembly and a new clip. Under no circumstances should the original hose be refitted.

The hose assemblies affected are as follows:

CBC 2179 - Underfloor pipe to valance
EAC 7938 - Pressure regulator to cooler
CAC 5868 - Cooler to return pipe.

INJECTOR PART NUMBERS:

The part numbers for the new injectors are:

EAC 7874 - Injector/hose assembly (short)
EAC 7875 - Injector/hose assembly (long)
EAC 7876 - Collar

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ITEM: 79

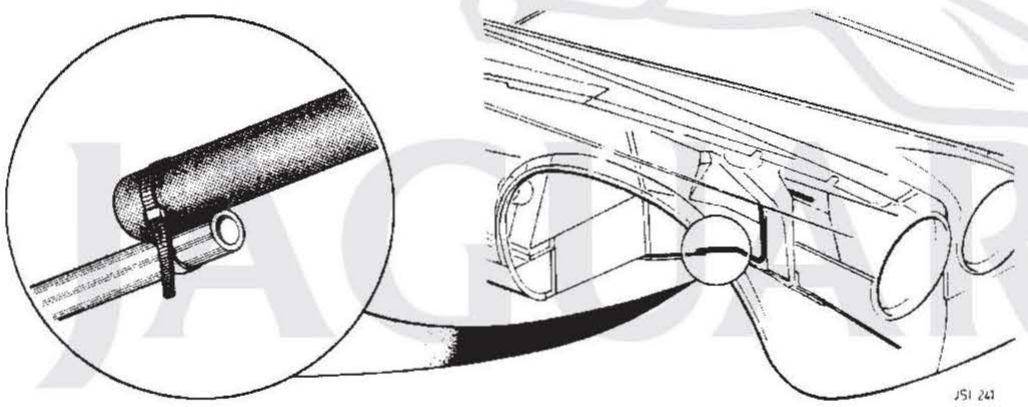
19 EMISSION CONTROL SYSTEM - USA S.III

As part of an exercise aimed at improving the consistancy of CO readings on vehicles supplied to the West Coast on the USA, vehicles destined for Los Angeles have had the carbon cannister to the fuel tank venting system disconnected at the connection under the RH wheel arch. The carbon cannisters have been disconnected at the RH wheel arch from the following VIN's:-

Track 1 - 436732
Track 2 - 436841

Therefore between the above VIN's a mixed condition may exist, however after VIN 436841 all vehicles arriving at Los Angeles will be disconnected. During the vehicles PDI, the flexible breather pipe situated to the rear of the front right hand wheel arch, must be connected to the steel bundy pipe.

It is important that if a blanking cap is fitted to the vent pipe, then this must be removed prior to connection.



ITEM: 80

44 TRANSMISSION OIL COOLER PIPES S.III V12/XJS V12

To improve the integrity of the transmission oil cooling circuit, revised oil cooler pipes have been introduced on V12 Models from VIN's:

435665 - S.III
126093 - XJS

The radiator/cooler and the transmission unit have also been modified to accommodate the revised pipes which now incorporate screw connector fittings. Further details and part numbers will be advised when parts are available.

ITEM: 81

57 P.A.S. PUMP DRIVE XJ-S 3.6/XJ-SC 3.6

To improve the power steering pump drive durability on 3.6 models, a revised drive arrangement, illustrated in Fig. 1, has been introduced from engine number 9D 102539.

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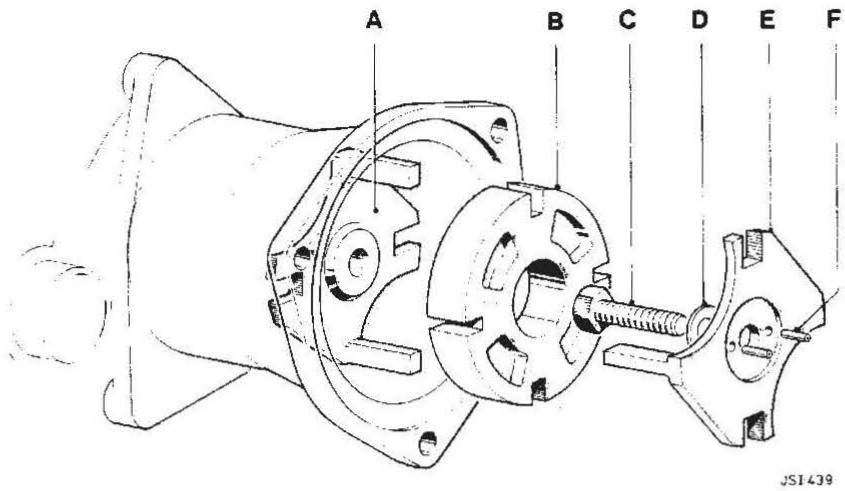

FIG 1.

Part numbers are as follows:

A - Pump Driving Dog	EAC 7081
B - Coupling	EAC 7107
C - Setscrew	SX 108255/J
D - Washer	FW 105E
E - Auxiliary Shaft Driving Dog	EAC 7080
F - Pins (2 off)	EAC 7643

The engine auxiliary shaft has been modified to accommodate the new driving dog. As a result these new components are not interchangeable with engines built prior to the above number. When replacement engines are supplied with the later type auxiliary shaft (Part No. EAC 6747) and drive dog fitted, the P.A.S. pump should be modified by fitting the later type drive dog (A Fig. 1) using Service Tool 18G 1445.

ITEM: 82

76 KIEKERT LOCKING S.III

Amendment to Jaguar Service Bulletin JD 09/85 Item 66. This Bulletin Item dealing with the introduction of Kiekert Locking on 1986 M.Y. S.III vehicles, contained certain components which were listed with the incorrect part numbers. The correct numbers are listed below:

BAC 8554 should read BBC 8554
BAC 6728 should read BBC 6728
BAC 6729 should read BBC 6729
BAC 6727 should read BBC 6727

ITEM: 83

76 BOOT BADGES S.III

From the commencement of 1986 MY vehicles, all S.III Saloons are being fitted with self adhesive boot lid badges. These obviate the requirement for badge pin fixing holes in the rear boot lid vertical panel.
This bulletin identifies, by illustration, the correct locations for fitting these new types of badges.

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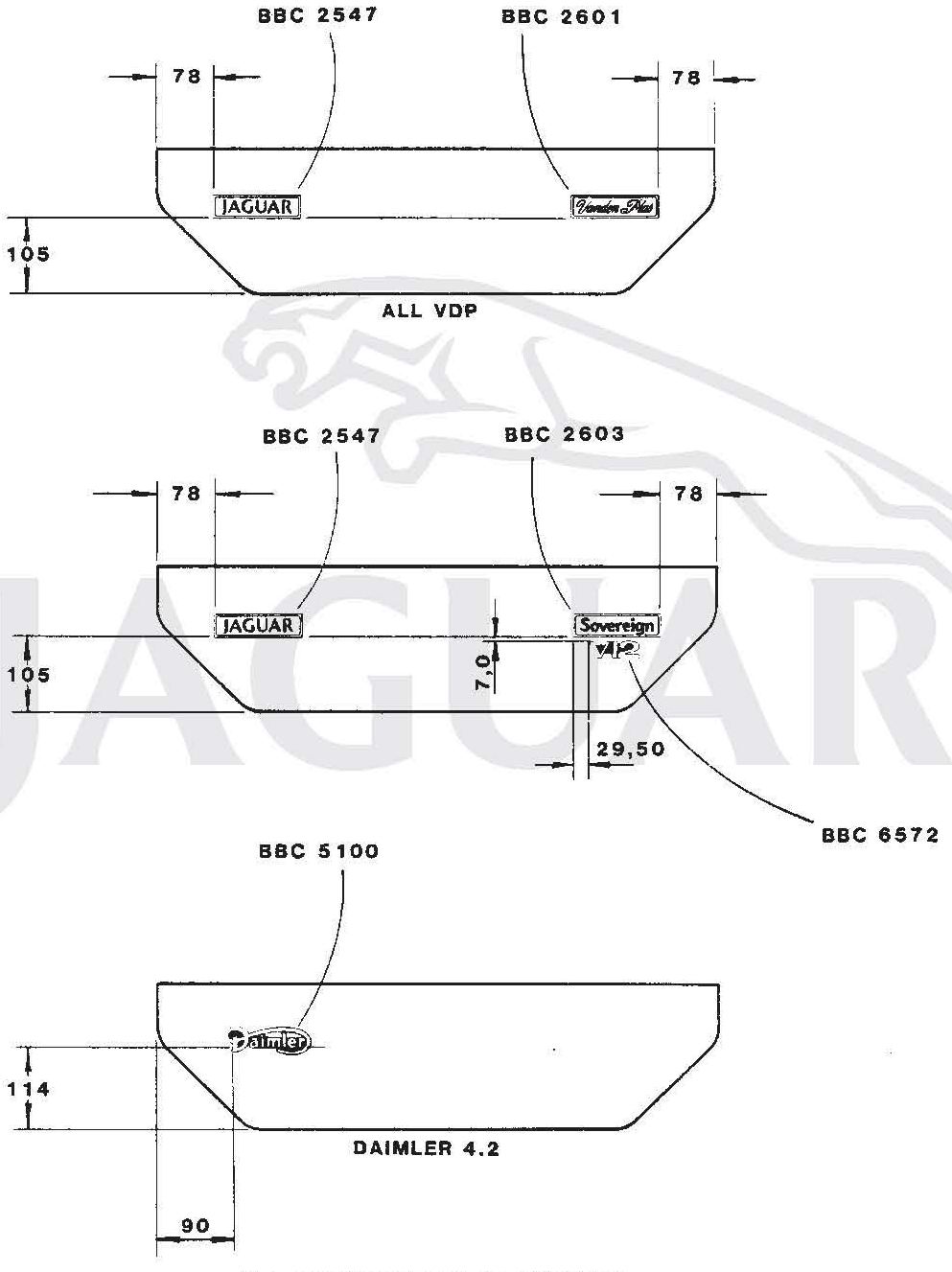
Fitment of Badge.

1) Thoroughly clean and dry the panel using a degreasing agent, such as SBP3 or similar.

2) Mark the badge location.

3) Peel off the badge backing strip and carefully position the badge to the marks on the panel. Secure by applying firm pressure.



ALL DIMENSIONS IN MILLIMETRES

JSI427

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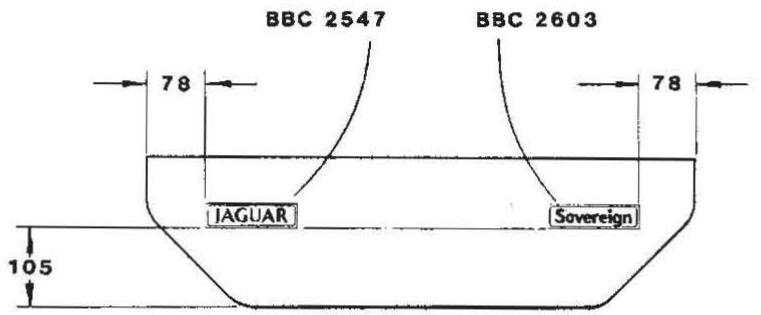
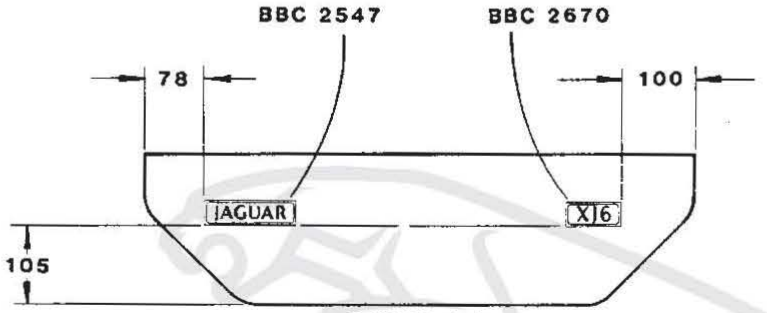
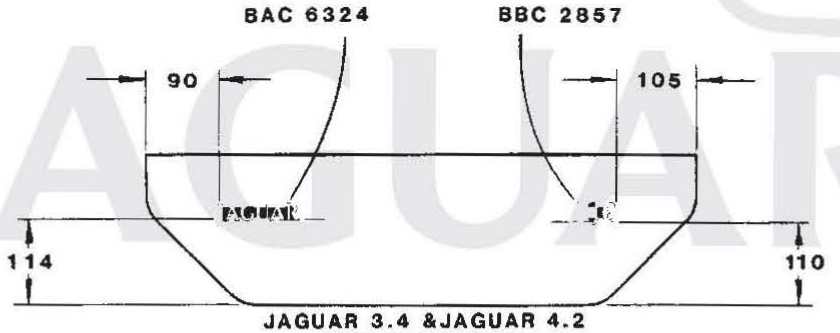


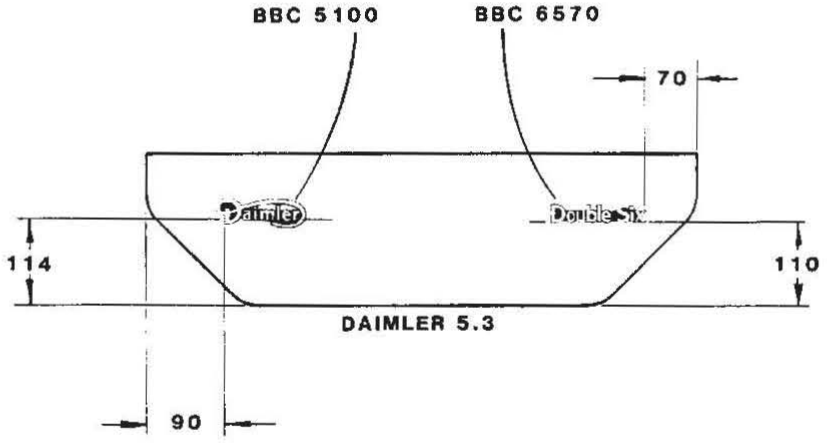
SOVEREIGN 4.2



JAGUAR 4.2
(EXCEPT USA & CANADA)



JAGUAR 3.4 &JAGUAR 4.2
USA & CANADA



DAIMLER 5.3

ALL DIMENSIONS IN MILLIMETRES

JSI426

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76 MATCHED VENEER KITS S.III/XJS

The introduction on 1986 MY vehicles of:

a). A centre console veneered panel - S.III saloons
and
b). A rationalisation of door cappings - ALL model variants

has brought about the need to restructure the veneer panel kits.

To keep the number of kits to a minimum, the console panels will be supplied separately.

When ordering a replacement veneer kit, Dealers should identify the relevant console panel and include it with their order.

Where possible, kit numbers released previously in Parts Technical Information Bulletins, Volume J5 Numbers J22 & 23, will remain unchanged. The following list, which includes all the new kit numbers, can also be found in Parts Technical Information Bulletin, Volume J6, Number J5.

Please note NEW kit numbers marked thus * only affect vehicles manufactured AFTER 1986 M.Y. introduction VINs.

431602 - SIII
125020 - XJS

The other kit numbers affect all model variants from 1983 M.Y., unless otherwise indicated.

Model	Part Number Clock	Trip Computer	
Jaguar RHD except Japan	JLM 198	JLM 196)	
" " Japan	JLM 199	JLM 197) Up to	
Jaguar LHD except Canada/Japan/USA	JLM 201	JLM 200) Vin 431601	
" " Canada/Japan/USA	JLM 203	JLM 202)	
Jaguar RHD except Japan	JLM 540	JLM 541 *	431602
" " Japan	JLM 542	JLM 543 *	431602
Jaguar LHD except Canada/Japan/USA	JLM 544	JLM 545 *	431602
" " Canada/Japan/USA	JLM 546	JLM 547 *	431602
Sovereign RHD	JLM 189	JLM 133	
" LHD except Canada	JLM 190	JLM 134	
" Canada	JLM 195	JLM 143	
Daimler RHD	JLM 191	JLM 139	
" LHD	JLM 548	JLM 549 *	431602
Jaguar LHD VDP Canada/Japan/USA	JLM 194	JLM 142	
" XJS 3.6 RHD		JLM 144	
" XJS 3.6 LHD		JLM 145	
" XJS V12 RHD		JLM 474 *	125020
" XJS V12 LHD		JLM 475 *	125020

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CENTRE CONSOLE VENEERED PANELS

Model	Manual Transmission	Auto with Speed Control	Auto without Speed Control
Jaguar S.III not VDP) Jaguar Sovereign S.III)	BBC 6604	BBC 6598	BBC 6601
Jaguar VDP) Daimler 4.2) Daimler Double Six)	BBC 7551	BBC 7552	BBC 7553
Jaguar XJS	N/A	N/A	N/A

These veneer kits are primarily for vehicles in warranty and are to be ordered as required.

ITEM: 85

76 REAR SCREENS S.III

On S.III vehicles manufactured during 1983/84, Service have established that certain conditions can cause a fault to develop which results in the failure of the rear screen demister circuit.

The introduction of new screens,

BBC 6550 - Clear
BBC 6551 - Tinted

has eliminated any potential failures on vehicles manufactured after:-

VIN 426000 4.2/5.3
VIN 429462 3.4

To prevent any possibility of repeat failures on vehicles in Service, all stocks of rear screen BAC 3182 and BAC 3183 have been withdrawn.

When carrying out service replacements of ANY S.III rear screen, ONLY part No. BBC 6550 or BBC 6551 may be used.

On the latest condition screens the vertical hotline busbar has been repositioned to avoid possible contact with sealants or trim finishers. To identify whether a replacement screen is to the latest condition, measure the distance between the vertical busbar and the edge of the screen. Early condition will be 16 mm, later condition will be 28 mm.

Dealers who use subcontract screen repairers should inform them of these changes. Failure to do so may result in the rejection of any subsequent warranty claims.

ITEM: 86

86 IGNITION AMPLIFIER S.III V12/XJS V12

Reports in Service, of an intermittent misfire have been traced to a faulty connector in the ignition amplifier to fuel injection ECU harness.

The connector in question is a single bullet type (Fig 1), located adjacent to the ignition amplifier, connecting the white/slate wire from the ignition amplifier, to the white wire from the fuel injection ECU.

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To prevent any further incidences of this problem occurring, a new type of posi-lock connector has been introduced from VINs:-

438567 - S.III
127026 - XJS

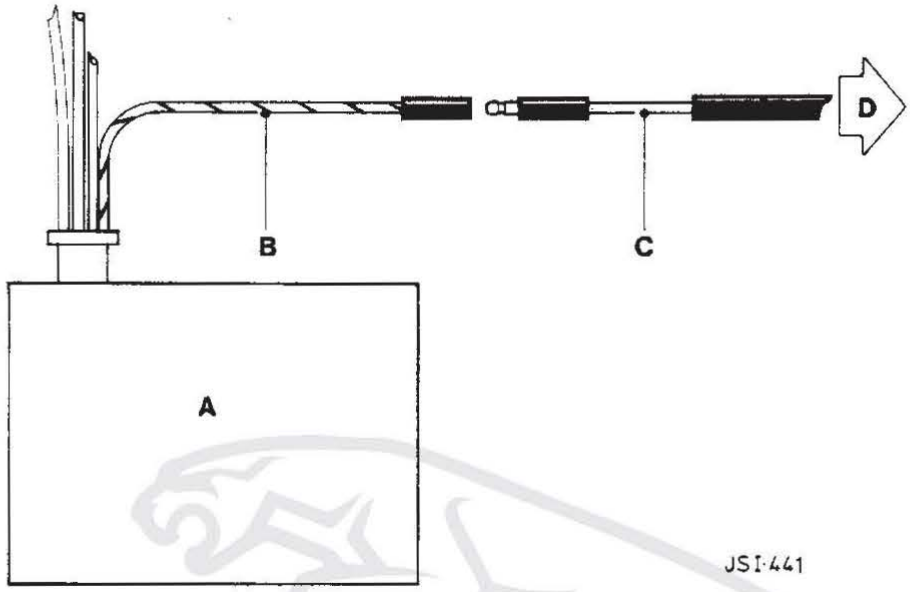

FIG 1

KEY
A - Ignition amplifier
B - White/slate wire
C - White wire
D - To ECU.

ITEM: 87

86 CRUISE CONTROL S.III V12/XJS V12

It has been brought to Jaguar Cars Ltd. attention that the Econocruise after market Cruise Control System is affected by the current modification to the V12 engine fuel rail. The following text is an extract from an Econcruise Service Bulletin issued to all Econocruise agents.

When carrying out the fuel rail modification on a vehicle fitted with an AFTER MARKET ECONOCRUISE SYSTEM then the following test MUST be followed.

1 Remove the throttle lever 'A' by unscrewing the two M5 hex head screws from the throttle turntable.

2 Using a junior hack saw cut off the material 'B' from one side of the throttle lever as shown.

3 Remove all sharp edges and burrs with a hand file.

4 Check to ensure the throttle goes to the fully closed position with the modified Jaguar throttle lever and ball joints fitted. If necessary, increase the clearance on the two fixing holes 'C'.

5 Refit the throttle lever to the throttle turntable using the two hex head screws. Again checking that there is adequate clearance.

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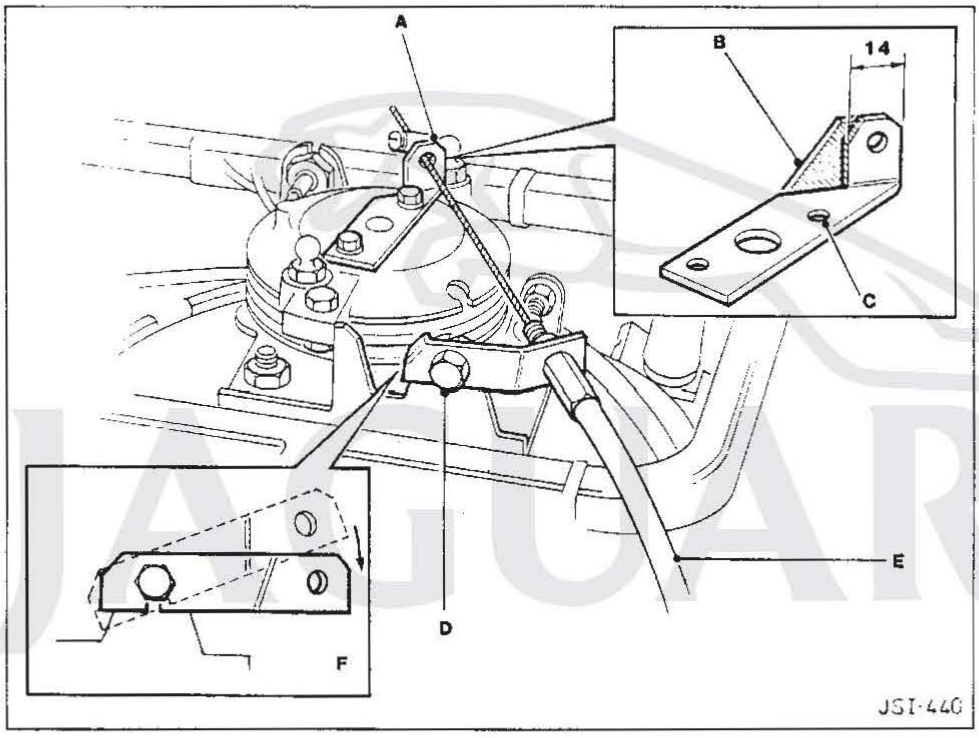
6 Slacken the nut and bolt holding the cable abutment bracket 'D' and with the cruise control cable in position 'E' rotate the abutment 'F' to obtain clearance under the ball joint with the inner cable and clearance over the fuel rail with the outer cable.

7 Re-tighten the nut and bolt holding the abutment bracket.

8 Check the operation of the cruise control cable and throttle by squeezing the bellows unit to pull the throttle on and then releasing.

9 CHECK THAT THE THROTTLE LINKAGE OPERATES CORRECTLY FROM FULLY OPEN TO FULLY CLOSED.

N.B. Should any problems be encountered, contact your local Econocruise Agent.



ITEM: 88

99 JAGUAR SPECIAL TOOLS S.III/XJS

Due to improvements to the current range of vehicles, the following new special tools or modifications have been introduced.

POWER ASSISTED STEERING RACK

A modified steering rack with a deeper and chamfered centralising pin hole introduced from VIN's:

413000 - S.III
120500 - XJS

This requires the use of a new steering rack centralising pin. This tool supercedes the existing tool No. 18G 1466, and the Jaguar spares supply tool No. 12297. The new tool has a longer locating shank and a rounded end and is numbered JD 117. It is also suitable for use on steering racks prior to this modification. This tool is mandatory and is available from V.L. Churchill Ltd. or its dealers.

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18G 1468 AUXILIARY DRIVES OIL SEAL REMOVER - AJ6

With the introduction of a modified auxiliary drives dog to the AJ6 engine, it is necessary to modify the existing 18G 1468 auxiliary drives oil seal remover. This modification requires the inside bore of the tool to be enlarged as shown in Fig. 1.

DIMENSION 'A' = 37.5 mm

DIMENSION 'B' = 22.15 mm

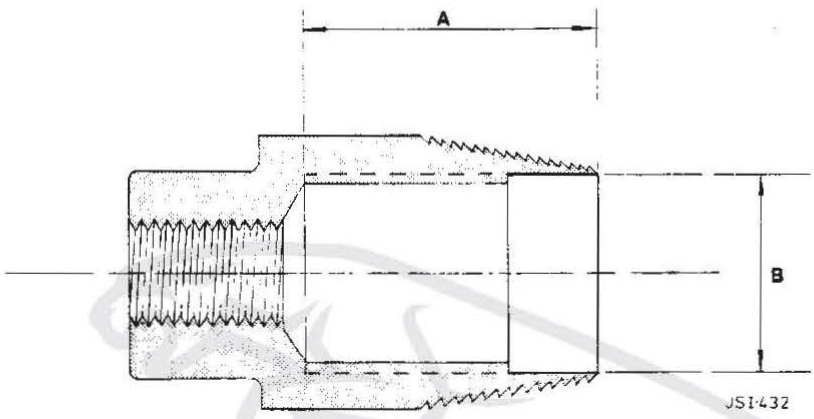

FIG 1

This modification will not affect its application on earlier engines and should be completed as soon as possible, as later engines have the modified auxiliary drive dogs fitted. Future supplies from V.L Churchill will already be modified and numbered JD 118.

18G 1445 POWER STEERING PUMP DRIVE DOG REMOVE/REPLACER - AJ6

A modified power steering pump drive dog on the AJ6 engine necessitates a new steering pump dog remover. The existing tool 18G 1445 is still required for replacing the drive dog. The new remover tool is JD 119 and should be used in conjunction with 18G 1445.

ELECTRICALLY OPERATED SUNROOF - XJS

With the introduction of the optional glass electric sunshine roof, two pilot plate alignment keys will be required to align the pilot plates after repairs. These keys are now available through V.L. Churchill or agents and are numbered JD 113.

OERLIKON CUT GEARS - S.III/XJS

Jaguar Cars are progressively introducing Salisbury axles with Oerlikon cut gears for the XJS and S.III range of vehicles. The ratios affected are the 2.88 and the 3.06. Identification of axle units containing Oerlikon cut gears is by a white 'O' painted on the axle cover. When overhauling these axle units, a new pinion height setting button will be required. This new tool is now available from V.L. Churchill or agents and numbered SL3 -2.

All the above tools are mandatory minimum standard tools and will be added to the Service Minimum Standards List at the next issue.

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It is Jaguar policy to issue all new tools with a Jaguar Part Number JD --. Where a tool is modified e.g. 18G 1468, it will be issued in modified form from V.L. Churchill bearing a new JD number. Where a tool accessory is developed to a existing tool bearing an 18G number, then the new part will be JD -- e.g. JD 119.

ITEM: 89

99 BODY SEALING AND PRESERVATION MANUAL - AKM 9137 ALL MODELS

In the recently published English language copy of the above manual, the trading title of a company supplying wax injection equipment was quoted incorrectly.

Please note and amend your copy as follows:

Page 23 (2) SATA HKD 1

Supplier: Minden Industrial
Newmarket Road
Bury St Edmunds
Suffolk IP33 3TS

Telephone No: (0284) 3418.

JAGUAR

Jaguar Cars Limited 2005

Service Bulletin

JAGUAR Daimler

DATE: MARCH 1988
SHEET: 1 of 3
BULLETIN: JD 05/88

ITEM: 26

09 USED ENGINE OILS — ALL MODELS

The Society of Motor Manufacturers and Traders, having set up a working group reporting to the Car and General Technical Board, have advised motor vehicle manufacturers to disseminate the following information on used engine oils:

Prolonged and **repeated** contact with mineral oil will result in the removal of natural fats from the skin, leading to dryness, irritation and dermatitis. In addition, **used** engine oil contains potentially harmful contaminants which may cause skin cancer. Adequate means of skin protection and washing facilities should be provided.

Health Protection Precautions:

1. Avoid prolonged and repeated contact with oils, particularly used engine oils.
2. Wear protective clothing, including impervious gloves where practicable.
3. Do not put oily rags in pockets.
4. Avoid contaminating clothes, particularly underpants, with oil.
5. Overalls must be cleaned regularly. Discard unwashable clothing and oil impregnated footwear.
6. First Aid treatment should be obtained immediately for open cuts or wounds.
7. Use barrier creams, applying before each work period, to help the removal of oil from the skin.
8. Wash with soap and water to ensure all oil is removed (skin cleaners and nail brushes will help). Preparations containing lanolin replace the natural skin oils which have been removed.
9. Do not use petrol, kerosine, diesel fuel, gas oil, thinners or solvents for washing skin.
10. If skin disorders develop, obtain medical advice.
11. Where practicable, degrease components prior to handling.
12. Where there is risk of eye contact, eye protection should be worn, for example, chemical goggles or face shields. In addition an eye wash facility should be provided.

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Environmental Protection Precautions:

It is illegal to pour used oil on to the ground, down sewers or drains, or into water courses.

The burning of used engine oil in small space heaters or boilers is not recommended unless emission control equipment is fitted; in cases of doubt, check with the Local Authority.

Dispose of used oil through authorised waste disposal contractors, licensed waste disposal sites or to the waste oil reclamation trade. If in doubt, contact the Local Authority for advice on disposal facilities.

ITEM: 27

57 PAS STEERING RACK MOUNTING BUSHES **XJS 3.6 (SPORTS PACK)**

The steering rack and pinion mounting bushes fitted to XJS 3.6 vehicles with sports pack suspension, are secured in position with Loctite 601.

Service Tool 18G 1324 should still be used to remove and refit them.

When fitting new bushes use Loctite 601; refer to the manufacturer's guide lines for application instructions.

ITEM: 28

66 RIDE HEIGHT SENSOR **XJ6 2.9/3.6**

To improve reliability and reduce quiescent current drain levels, a new ride height sensor Part No. DBC 3439 incorporating "CMOS" technology has been introduced from VIN 523301.

The new sensor is fully interchangeable with the previous "PMOS" type sensor Part No. DBC 3287.

ITEM: 29

74 TYRE REPAIR **ALL MODELS**

Due to differing legislative requirements concerning the repair of tyres in all markets and the various make/type of tyres being fitted to Jaguar vehicles, the following statement will be incorporated in all handbooks and service literature:

It is recommended that damaged tyres are replaced and not repaired in view of the high performance capability of the vehicle.

ITEM: 30

76 BONNET/CHASSIS EARTH **XJ6 2.9/3.6**

To ensure a good 'earth' exists between the bonnet and the vehicle chassis, an earth braid strap has been introduced from VIN 523964.

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The earth strap which is fitted between the LH bonnet hinge and the vehicle chassis hinge bolts has been introduced to prevent the possibility of engine related ignition noise being radiated from this source, which could interfere with radio signal transmissions.

Should Dealers receive reports of radio interference, suspected as ignition based, prior to VIN 523964, then the earth braid strap Part No. DBC 4727 should be fitted as shown in Fig 1 before undertaking further investigations.

Parts Required

Part No.	Description	Qty
DBC 4727	Earth Braid	1
SH 108201J	Bolt	1
FN 108041J	Nut	1
FW 105E	Washer	1

A labour allowance of 0.30 hours may be claimed quoting Fault Code 7QAT, Repair Operation No. 86–91–14.

Procedure:

1 Open the bonnet.

2 Release and remove the LH bonnet hinge lower bolt and discard (Fig 1 A).

3 Clean the paint from around the surrounding surface of the hole to ensure a good earth connection.

4 Position the earth lead and secure using a new bolt Part No. SH 108201J and washer Part No. FW 105E (Fig I [A & B]).

5 Remove the LH side radiator grille assembly.

6 Release and remove the fixing nut from the lower hinge bracket (Fig 1 C)

7 Clean the paint from the surrounding surface of the studs to ensure a good earth connection.

8 Route the earth lead to the lower stud as shown (Fig 1) and secure using a new fixing nut Part No. FN 108041J (Fig 1 C).

9 Apply a light smear of grease to the fixing points to prevent the possibility of corrosion.

10 Replace the radiator grille panel and close the bonnet.

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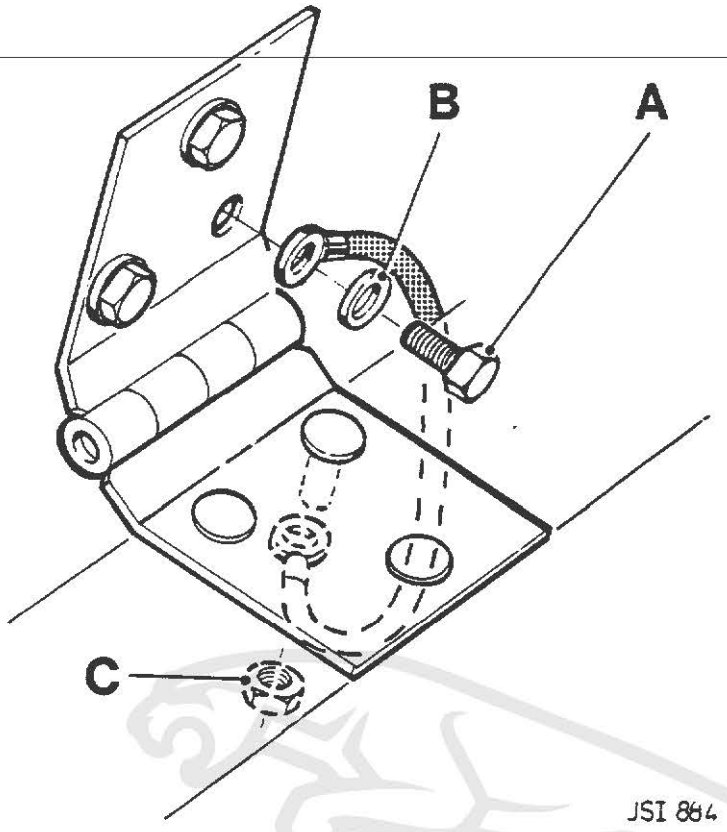

Fig 1.

ITEM: 31

79 PAINT COLOUR CODE **ALL MODELS**

Please note the change of Jaguar Sales Code and BLVC on clear over base colour **Glacier White.** This follows reformulation to improve opacity:

JBC 742 (BLVC NDP) Glacier White
replaces
JBC 721 (BLVC NDK) Glacier White

This reformulation was progressively introduced from VINs:

542482 – XJ6
149361 – XJS

ITEM: 32

86 ELECTRIC AERIAL **XJ6 2.9/3.6**

During investigations into signal reception quality, improvements in the aerial signal to noise ratio i.e. (weak transmission signal high background noise, strong signal low background noise) have been gained by shortening and repositioning the electric aerial earth braid.

Where instances of weak signal strength are suspected the following detailed modification should be carried out.

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Please Note: This modification will offer some improvement in signal strength but will not overcome the more prevalent reception interference encountered in certain areas of the British Isles, resulting from low level transmissions utilized by the BBC and some local radio stations.

The interference referred to is caused by signal break-up which affects Radio 3 VHF transmissions and is commonly interpreted as a "chuffing" sound, which coincides with the vehicle passing land based obstructions i.e. trees, high buildings, etc.

A labour allowance of 0.45 hrs may be claimed quoting Complaint Code 7QAT – Repair Operation No. 86–91–13.

Modification Procedure:

Parts Required:
* Eyelet Connector – Internal diameter 4mm (0.15 in)
* Self Tapping Screw No.8 x 13mm (0.50 in)
* Suitable Star Washer

1 Disconnect the battery negative cable.

2 Remove the jack assembly, spare wheel and rear trim panel.

3 Remove the RH side trim panel.

4 Locate and remove the aerial earth lead from the relay mounting plate fixing (Fig 1 A). Relocate the side harness earth cable to relay mounting plate, refit and secure the fixing screw.

5 Mark out the new position for the aerial earth lead as shown in Fig 1 inset B = 10mm (0.40 in) C = 7mm (0.28 in), drill 2.5 mm (3/32 in) hole. Clean the paint from the surrounding surface to ensure a good earth connection.

6 Position the aerial mast earth lead to the new fixing point ensuring that the shortest length possible can be fitted without putting any strain on the lead (Fig 1 D). Mark the earth braid ensuring the new length will be approximately 76mm (3.0 in) when measured from the centre of the eyelets.

7 Cut the earth braid, secure and solder the new eyelet.

8 Locate and secure the eyelet to the new earth point using the recommended self–tapping screw and washer.

10 Apply a light smear of grease to the new earth fixing to prevent the possibility of corrosion.

11 Refit the trim panels, spare wheel/jack assembly and reconnect the battery.

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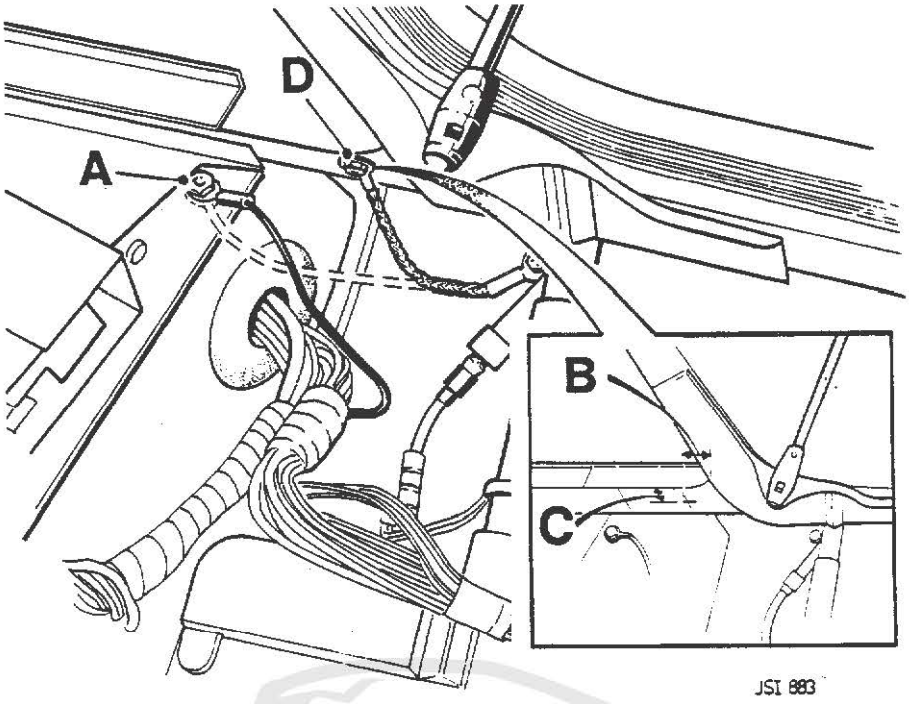

Fig 1.

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Service Bulletin

JAGUAR

Daimler

DATE: MAY 1990

REF: JD 06/90

SIII 5.3 **ITEM: 21**

SIII 1990 MODEL YEAR RUNNING CHANGES

Jaguar have introduced the following specification alterations since the production of the first 1990 model year range. Volume introduction for the following alterations is from January 1990, from VIN 483096.

STEERING WHEEL

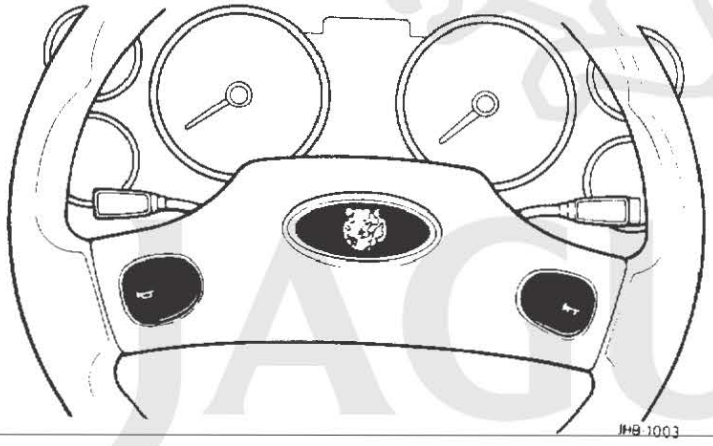

FIG 1

The XJS sports-pack steering wheel which was replaced on the XJS at 1990 model year is now fitted to the SIII V12 saloon (including the Canadian VDP), see Fig.1. The Daimler Double Six however, retains its standard steering wheel.

SEAT BELTS

All seat belts are now colour keyed except in territories where the colour is stipulated by legislation. Six colours of webbing are utilised as shown in the following table:

INTERIOR TRIM COLOUR	WEBBING COLOUR
DOESKIN	DOESKIN
BARLEY	BARLEY
SAVILE GREY	SAVILE GREY
PARCHMENT	PARCHMENT
MAGNOLIA	MAGNOLIA
MULBERRY	WARM CHARCOAL
ISIS BLUE	WARM CHARCOAL
WARM CHARCOAL	WARM CHARCOAL

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Front Seat Belts

The inner buckle is unchanged. The retractor and 'B' post running loops are as used on the XJ6 2.9/4.0 but with unique belt lengths.

Rear Seat Belts

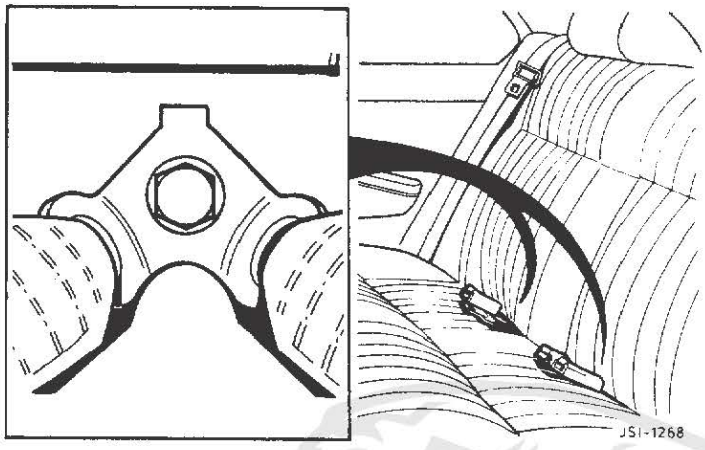

FIG 2

For the outboard seats, the retractor assemblies are as used on the XJS but with unique belt lengths. A recess is provided in the rear quarter trim panel to give clearance with the retractor assemblies. The outboard buckle and strap assemblies are as used on the XJ6 2.9/4.0 but with unique belt lengths. The centre lap belt and buckle is now joined with the outboard buckle and strap as –semblies to form a single mounting plate, see Fig.2.

Note that the position of the mounting plate is inverted on the XJ6 to that shown on Fig.2.

NOTE: Torque tightening values are unchanged at:

Front seat belts	24 to 28 lbf.ft
Rear outboard seat belts	18 to 20 lbf.ft
Rear centre (bulkhead) belts	18 to 22 lbf.ft

XJS COUPE & CONVERTIBLE **ITEM: 22**

03 REPAIR OPERATION TIMES

The following repair time amendments and additions should be made to Repair Operation Times supplement Issue 2.

76.81.11 – Heated Backlight Renew – 12 cylinder/6 cylinder coupe; columns – 165791 on – should read 1.65 hrs not 1.40 hrs. Both convertible columns for this S.R.O. should read N/A.

New repair operation:–

76.81.11/70 – As 76.81.11 (Convertible only) – A time of 1.05 hrs should be inserted in both convertible columns for this S.R.O.

No other repair times are affected.

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CURRENT XJS & XJ40 **ITEM: 23**

12 TEVES BRAKE SYSTEMS TEST PRESSURES

The following are the correct reference pressures to be used whilst checking the operating pressures of the brake system with the Jaguar Power Hydraulic Test Kit. They replace the pressures quoted in XJS Service Manual (Part Number JJM 10 04 06), Volume 3, Section 70, and in XJ6 Service Manual (Part Numbers JJM 10 04 05/90–English; JJM 11 04 05/40–French; JJM 12 04 05/40–Dutch; JJM 13 04 05/40–German; JJM 14 04 05/40–Italian; JJM 15 04 05/40–Spanish; JJM 17 04 05/40–Japanese), Volume 3, Section 70.

NOTE: All pressures are quoted in bar.

Pressure Switch

	Upper Switching Point (Pump Stops Running)	Lower Switching Point (Pump Starts Running as Pressure Drops)
Maximum	195	149
Nominal	180	140
Minimum	171	128.5

Warning Switches

NOTE: The following pressures are measured by reducing pressure from a fully charged system. This can be achieved by operating the brake pedal several times with the pump motor power supply disconnected.

	Pre 90 MY	Post 90 MY Low Pressure Warning Switch (W.S.1.)	Post 90 MY ABS Warning Switch (W.S.2.)
Maximum	112	112	105
Nominal	105	105	95
Minimum	96	96	85

NOTE: Only one set of pressures exist for the pre 90 MY switch assembly, the low pressure warning (LPW) and ABS warning acting simultaneously. The slight delay of the ABS warning behind the LPW is caused by the ABS electronic control unit (ECU).

Pressures not identified on the charts are those for the warning lights to extinguish during charge up of the system. These pressures should be no greater than their warning illumination pressure (shown in the chart), plus 30 bar, e.g. if W.S.1 operates at 105 bar as pressure is reduced, the same switch may not operate until 135 bar is reached as the system charges up. This is due to hysteresis within the switch.

If any of the measured warning pressures are incorrect to the figures given in the charts, or if the warning switch sequence is incorrect, i.e. W.S.1 operates before W.S.2 on charge up and after W.S.2 as the pressure reduces (post 90MY only), change the pressure switch assembly and return the suspect assembly through normal warranty returns procedure.

A new accumulator has a gas charge of 84 bar, and in service must not fall below 30 bar. This can be checked by fully depleting the boost pressure, switching on the ignition and recording the pressure immediately indicated by the gauge. If this is below 30 bar, the accumulator should be renewed.

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Maximum charge–up time of the system from a fully depleted condition is 60 seconds. If this time is exceeded, even with the pressures complying to the figures previously given, the pump should be regarded as suspect.

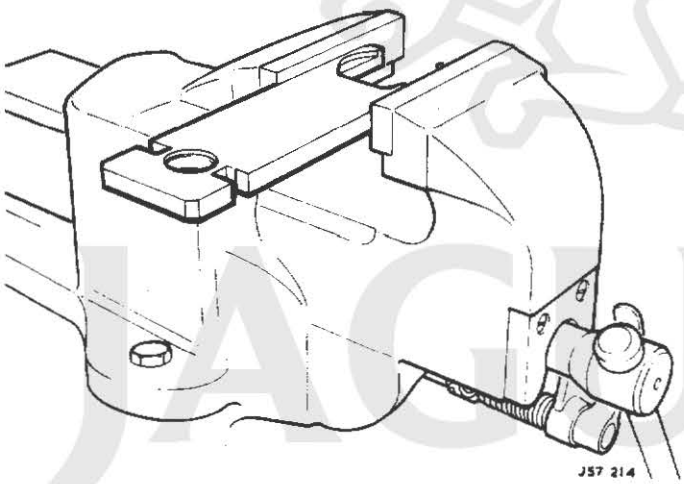
Battery voltage should be between 10.0 and 14.5 V, measured with the pump running.

AJ6 ENGINES **ITEM: 24**

57 POWER STEERING PUMP DRIVE DOG REMOVAL AND REPLACEMENT

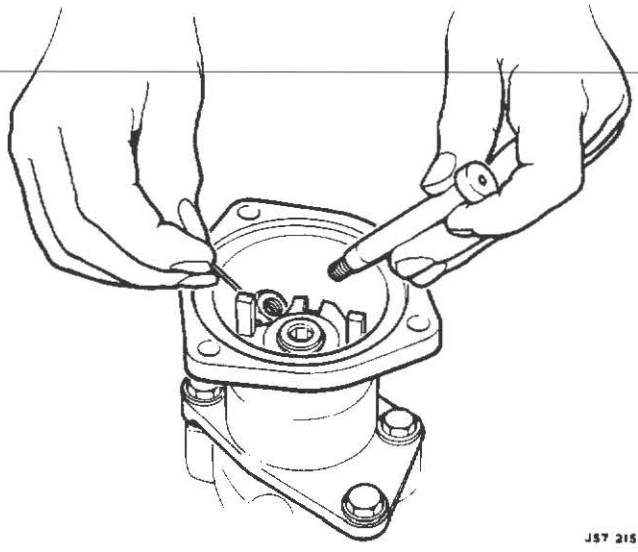
Instances have been reported of damage being caused to power steering pump drive dog removal tools JD.119 and 18G.1445, by incorrect usage. This Bulletin describes the correct procedure to be adopted whilst removing and replacing drive dogs. Ensure the procedure is followed, and no damage will result.

REMOVAL PROCEDURE



Secure the plate part of JD.119 in a bench vice as shown in Fig. 1.

FIG 1



Hold (by its wire) one of the two nuts under a cut–out of the pump's drive dog flange (see Fig 2).

FIG 2

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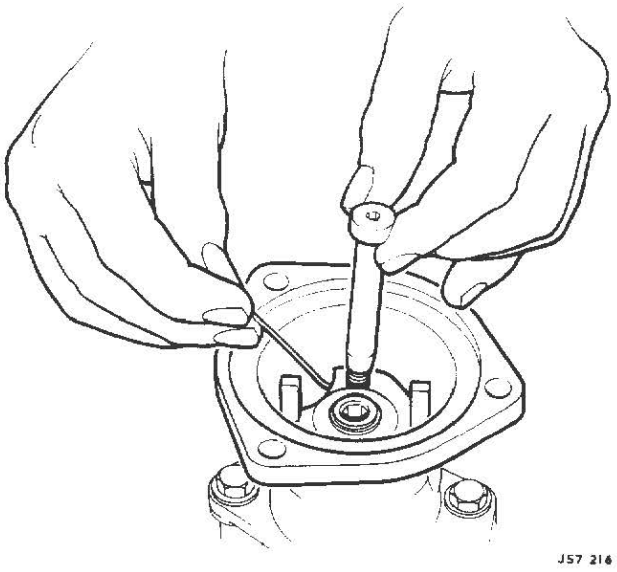

FIG 3

Screw one of the two bolts into the nut and lightly tighten it (see Fig. 3).

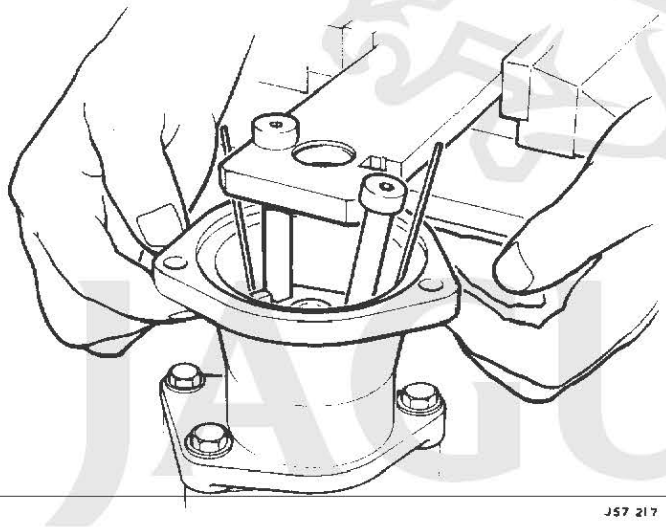

FIG 4

Repeat for the other nut and bolt, but only enter the bolt by approximately two threads, and position the pump under the plate (see Fig 4).

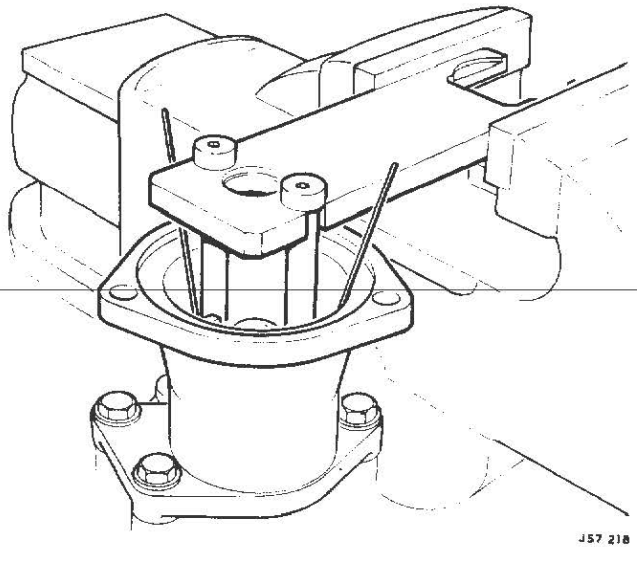

FIG 5

Locate the bolt heads in the slots to support the pump (see Fig. 5), and tighten the second bolt.

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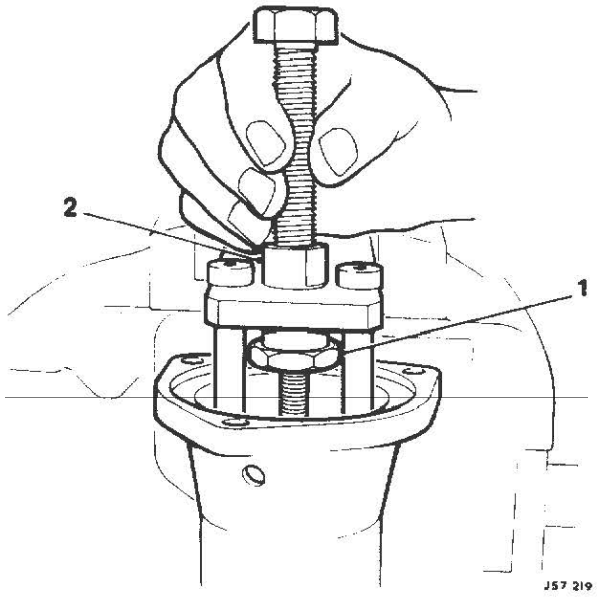

FIG 6

Assemble tool 18G.1445 as shown in Fig. 6 (ensure that the hexagon (1) is below the plate and the two flats (2) above). Screw the centre bolt of the tool into the pump shaft so that it is fully engaged and finger tight, and screw the centre section's hexagon up so that it contacts the underside of the plate.

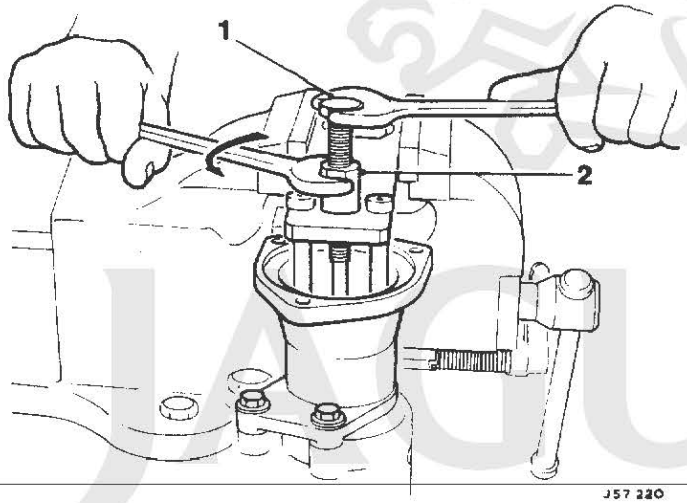

FIG 7

Refer to Fig.7. Using a 22mm spanner, hold the centre bolt (1) so that it cannot turn. Using a 19mm open-ended spanner, turn the centre section of the tool (2) anti-clockwise to withdraw the pump's drive dog.

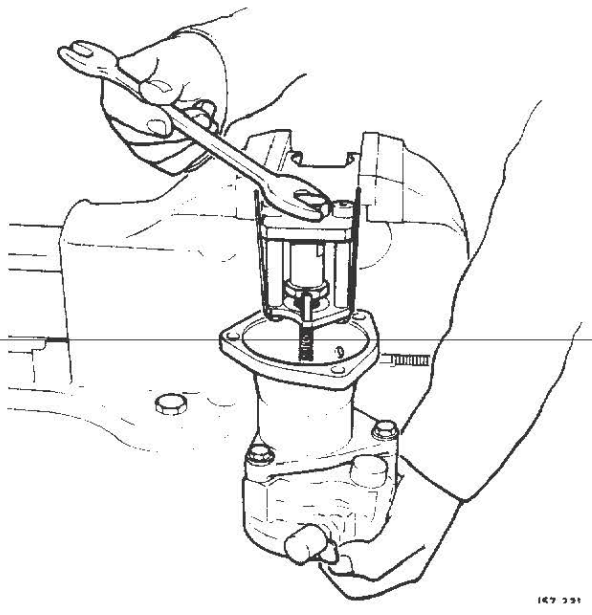

FIG 8

Support the pump in the hand and slacken the centre bolt to release the pump (see Fig. 8). Lift out the drive dog.

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REPLACEMENT PROCEDURE

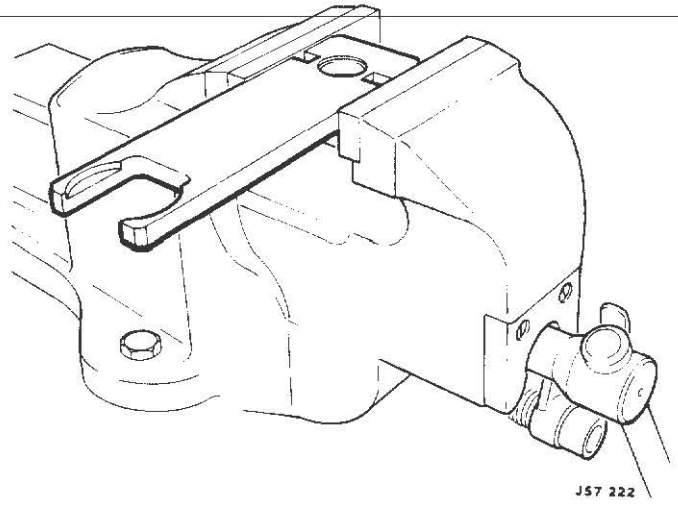

FIG 9

Secure the plate part of JD.119 in a bench vice as shown in Fig. 9. (Note that this procedure utilizes the opposite end of the plate to that used in the removal procedure).

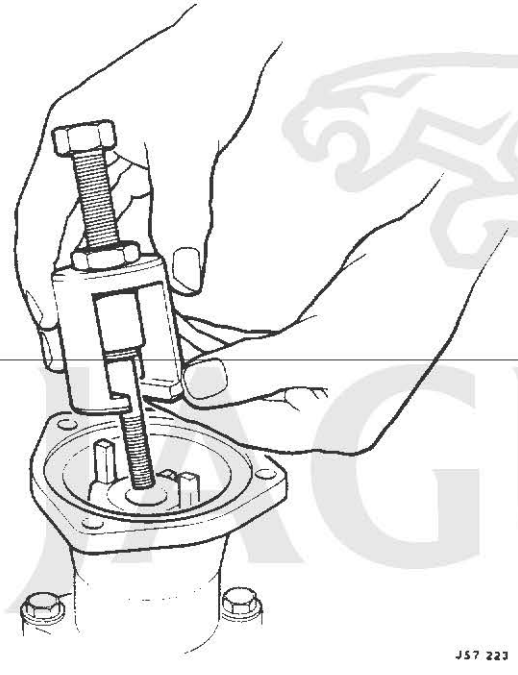

FIG 10

Place the drive dog on the pump's shaft (dogs uppermost). Assemble tool 18G.1445 as shown in Fig.10 (note orientation, with hexagon above the centre section), and screw the bolt into the pump's shaft until fully engaged and finger tight.

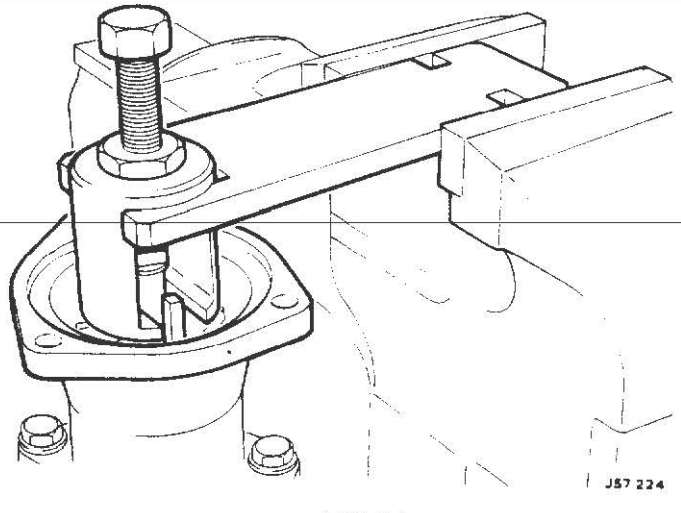

FIG 11

Support the tool/pump assembly in the 'fork' of JD.119 (see Fig. 11).

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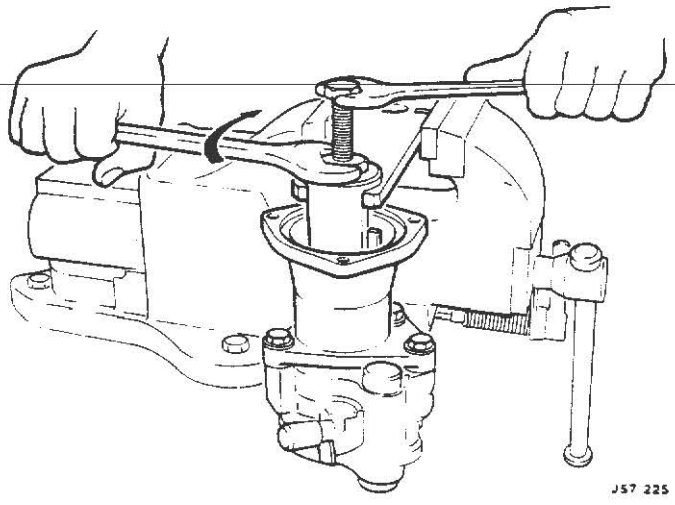

FIG 12

Refer to Fig. 12. Use a 22mm spanner to prevent the bolt turning and use a 28mm spanner to turn the centre section of 18G.1445 in a clockwise direction to press the drive dog on to the shaft.

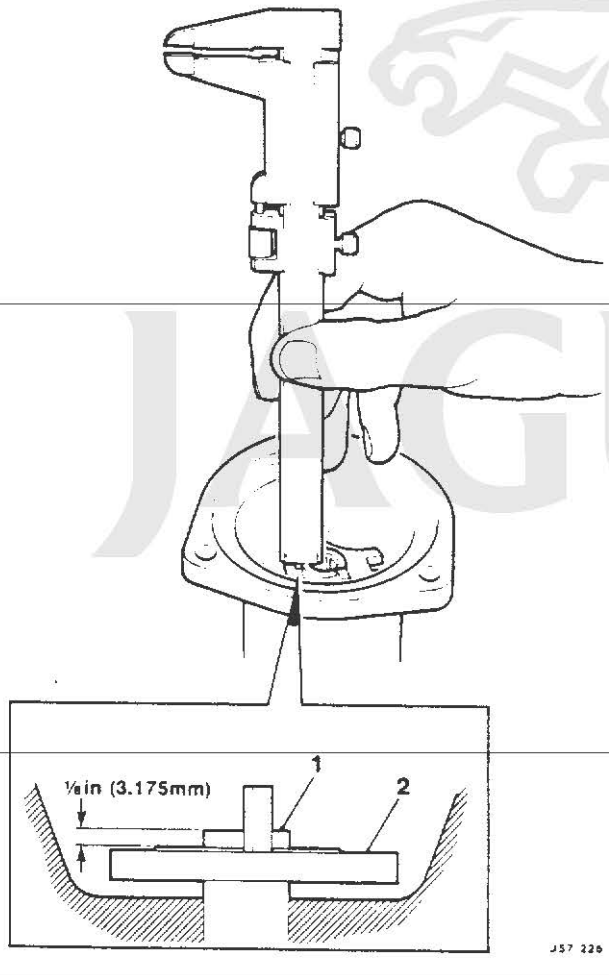

FIG 13

Continue pressing the drive dog (1 Fig. 13) on to the shaft until the shaft (2 Fig. 13) is approximately 1/8in (3.175mm) proud of it. Use a depth gauge or vernier caliper to check the dimension, and adjust as necessary.

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XJS 90 MY **ITEM: 25**

70 POWER HYDRAULIC DIAGNOSTIC KIT ADAPTOR

The test point adaptor (JDS 9010), which is used on pre 1990 cars, cannot be used on 1990 models due to a change in the brake system pipework from the motor pump unit. The Bundy pipe now utilized must be replaced by a flexible hose and an adaptor before testing can proceed.

The parts required are:

Flexible hose.	Order No. JDS 2024
Adaptor	Order No. JDS 2022
Sealing washer	Order No. JDS 2025 (two off)
Service Bulletin	JD 04/88

Note that the above parts are as used for 90 MY XJ6 2.9 / 4.0. The adaptor is stamped '07'.

Procedure:

Ensure that the ignition is switched off.

Depressurise the system by depressing the brake pedal approximately twenty times.

Note that the pedal 'feel' goes hard when the system is fully depressurised.

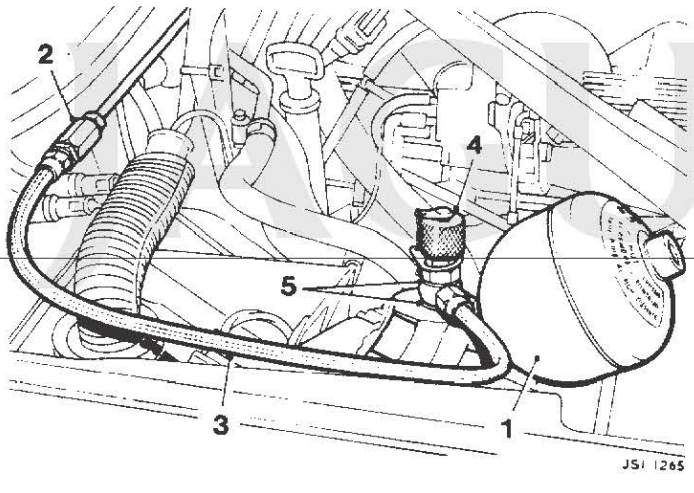

FIG 1

Disconnect and remove the short length of Bundy pipe that connects the accumulator assembly (1 Fig 1) to the in–line connector (2 Fig 1) on the bulkhead. Cap the ends of the pipe to prevent ingress of foreign matter. Connect the flexible hose (3 Fig 1) (no sealing washer) to the in–line connector.

Assemble the adaptor (4 Fig 1) to the flexible hose and the accumulator assembly using the two sealing washers (5 Fig 1).

The procedure for pressure testing and bleeding the hydraulic system is given in Service Bulletin JD 04/88 (Item 25).

XJ6 **ITEM: 26**

76 VEHICLE WATER INGRESS VIA BOOT LOCK

It has been established that water may enter the boot interior via the lock barrel on XJ6 vehicles.

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To correct this problem a modified boot lid lock finisher plinth has been introduced on all XJ6 models built from VIN 616664. The new plinth finisher incorporates water drainage cut-outs on its lower edge, as shown in Fig 1.

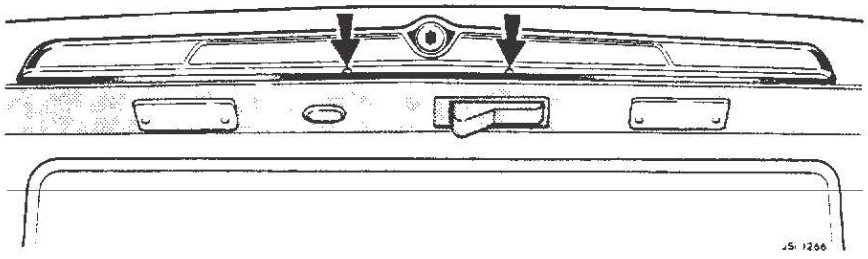
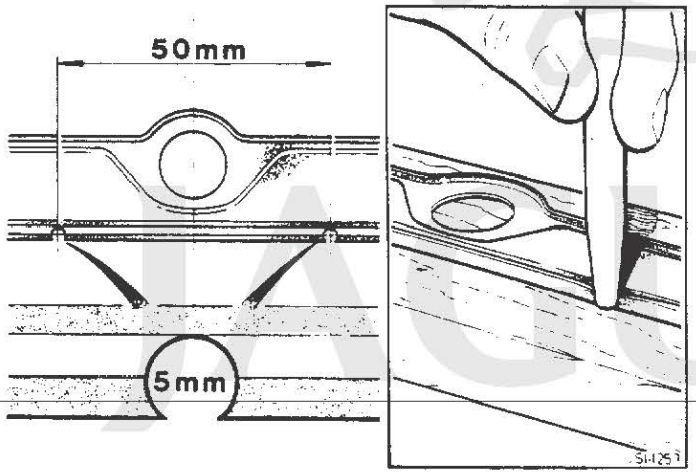


FIG 1

To rectify cars built prior to the above VIN, which exhibit this problem, the following rectification procedure should be employed to allow excess water to drain from the boot plinth finisher:

Procedure for Providing Water Drainage from Boot Plinth Finisher

1 Open the boot lid and remove the chromed plinth finisher and its rubber mounting gasket.



2 Using a suitable block of wood placed on a work bench, place the rubber gasket on to the block, see Fig 2.

3 Measure from the gasket centre line a dimension of 50 mm in each direction, along the bottom edge of the rubber gasket; then, using a 5mm hole punch and ball pien hammer, cut out holes at the 2 x 50 mm measured positions on the gasket, see Fig 2.

FIG 2

4 Refit the plinth and the gasket onto boot lid.

Warranty claims may be submitted, where appropriate, quoting:–

S.R.O. 76.91.47 Time allowance 0.20 hrs, Fault Code 9FBJ.

XJ6 2.9 & 4.0 **ITEM: 27**

76 TIBBE KEY AND LOCK

INTRODUCTION

Monitoring during the period since the introduction of the Tibbe locking system has identified that the procedure for the repair/replacement of the Tibbe locks should be clarified.

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This Bulletin has therefore been compiled to meet the above requirement and also to provide a method for determining the key codes for individual Tibbe keys.

The content of this Bulletin is divided into the following two sections:

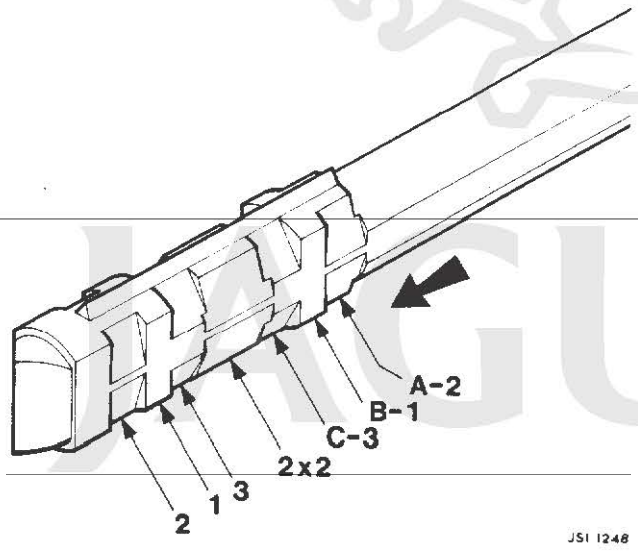
Section A – Identification of the key code/cut sequence.

Section B – The repair procedure for the door and boot locks.

SECTION A

Prior to the introduction of the Tibbe system, key cut codes were determined by cross–referencing a unique code to a list of cut codes. This procedure is no longer applicable because the Tibbe number and cut code are the same. Determining this code is achieved by simple visual examination of the operational portion of a Tibbe key.

To define the key code for all Tibbe keys refer to Fig.1. The illustration shows that the Tibbe key has eight cuts on the operational portion of the key. Reading the key code requires that the observer recognises the three types/levels of the cut which are used to form the cut portion.



These three cut types can be defined as follows:

	Type	Numeric value
Position A	Half cut	A = 2
Position B	No cut	B = 1
Position C	Full cut	C = 3

Therefore, when each cut type has been determined, write down its numeric value, starting from position A, reading the sequence of cuts in the direction of the arrow.

NOTE: The key Number/Cut code for the key shown in Fig.1 is 21322312.

FIG 1

SECTION B. LOCK REPAIR PROCEDURE

Three repair kits are now available from Jaguar Parts Division which can be used to effect repairs to the right and left hand front door and boot lock. The construction of the remaining two vehicle locks is such that it prevents a repair being undertaken. The method of replacing these locks is explained in Appendix 'C'.

Lock Repair Kits

Part No.	Description
JLM 2040	L.H. door lock repair kit
JLM 2039	R.H. door lock repair kit
JLM 2042	Boot Lock lock repair kit

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NOTE: For kit contents see appendix 'A' and 'B'.

Within the clean room area of the service workshop, prior to undertaking a repair, an area of the work bench should be prepared by covering it with a clean lint free cloth or paper towel. A clean working area for the following procedure is essential.

NOTE: At every stage of the following repair procedure absolute cleanliness must be observed because any dirt or contamination of the inner lock will prevent the lock functioning correctly.

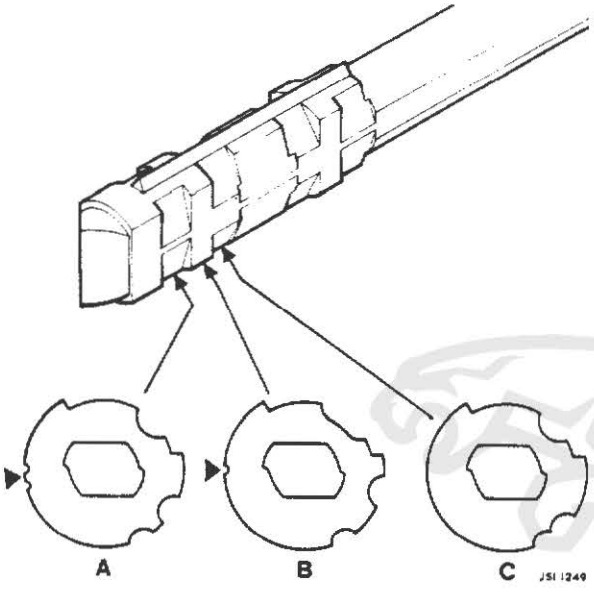

FIG 2

Relationship Between the Lock Disc and Key Cuts.

All lock repair kits will contain a total of 12 discs, which are divided into three formats of which there are four discs for each format. Identification of each disc format is achieved by reading the notch sequence found on the edge of each disc. See Fig.2 for the disc to key cut relationship

DISC TYPE (FORMAT)	NOTCH SEQUENCE	CUT NO./TYPE
A	2	2
B	1	1
C	NO NOTCHES	3

This relationship is the same for all Tibbe lock assemblies. Therefore, using the key cut number shown in Fig.1, the disc relationship and the lock disc order would be as shown below for key number 21322312.

KEY CUT NO./TYPE	DISC TYPE FORMAT	NOTCH SEQUENCE
2	A	2
1	B	1
3	C	NO NOTCHES
2	A	2
2	A	2
3	C	NO NOTCHES
1	B	1
2	A	2

Disassemble Door Lock

1. Remove faulty door handle assembly from the vehicle door.

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2. Remove the lock barrel from the door handle housing:

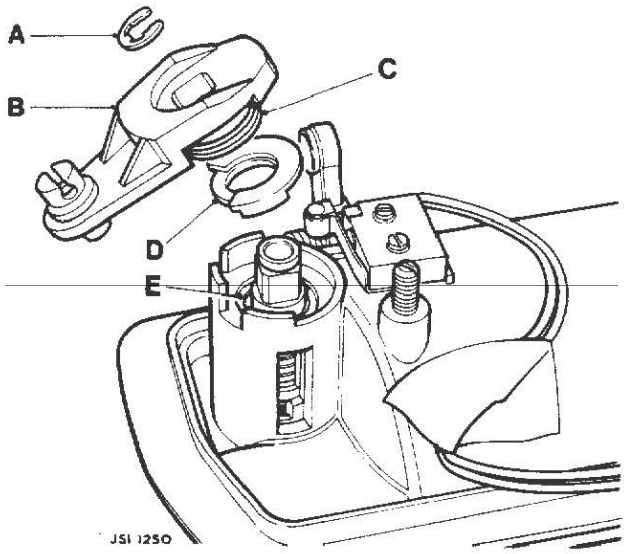

FIG 3

A. Remove 'C' clip (A, Fig.3).

B. Remove plastic actuation arm, return spring and spacer washer (B, C & D Fig.3).

C. Remove circlip which retains the lock barrel into its housing (E, Fig.3).

D. Hold handle in the attitude shown in Fig.4 and gently extract the lock barrel assembly and steel roller (A, Fig.4) from its housing. Remove the shutter assembly (B, Fig.4).

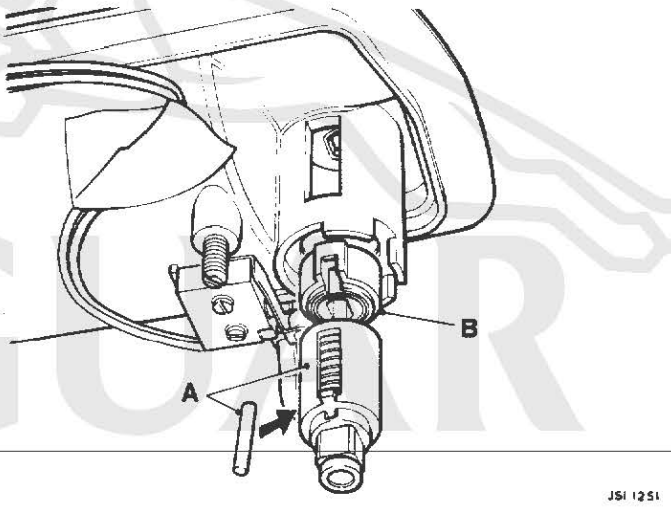

FIG 4

E. The lock barrel assembly should be kept in its assembled condition so that it can be used as a checking reference when assembling the replacement kit. The kit contents will allow the replacement of all parts as outlined in Appendix 'A'.

Assemble Door Lock

1. Select new discs and spacers from the kit and arrange them in assembly order, appertaining to the key cut sequence.

2. Proceed to assemble discs and spacers into new lock barrel supplied with the kit. As each disc/spacer is installed a smear of lubricating grease (supplied in the kit) should be applied to each face of these parts.

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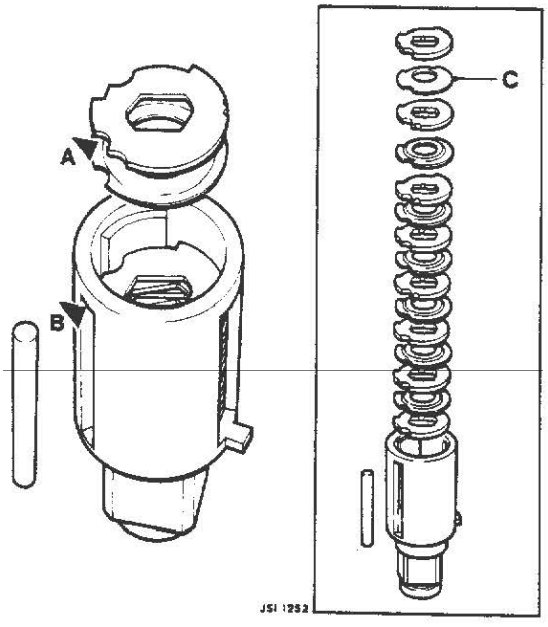

FIG 5

3. The single spring spacer should be fitted between the last two discs installed into the lock barrel (C, Fig.5).

4. Align discs and spacers so that the steel roller locates into the lock barrel (A and B, Fig.5).

5. Lubricate and fit new shutter assembly from kit into door handle. Lubricate and fit steel roller into lock barrel (A, Fig.5). Fit the lock barrel assembly into the lock housing.

6. Refit the lock barrel retention circlip. Reassemble lock using new parts as supplied in the parts kit.

7. Finally check that the disc assembly is correct by viewing the disc assembly at the position shown in Fig.6.

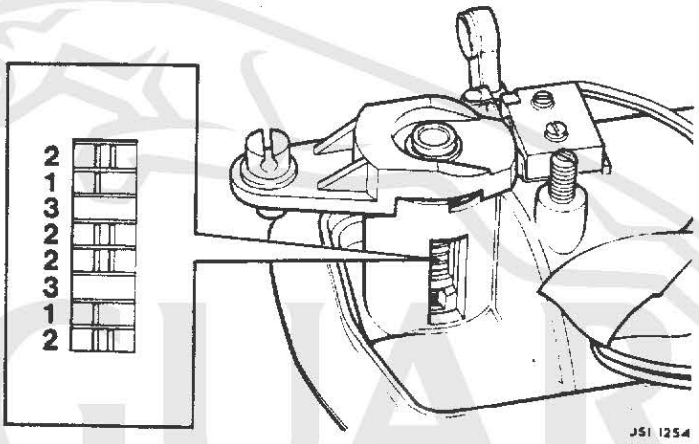

FIG 6

NOTE: This check can also be employed to identify the key/cut code on all XJ6 vehicles fitted with Tibbe locks.

8. Test the lock for correct operation using the key. Refit the door lock handle into the door and test the lock/latching function.

Repairing/Replacing Boot Lock

Applying the procedure outlined in Service Repair Operation 76–19–19, remove boot lock barrel assembly from its housing. Discard this lock barrel after checking that the fault is not due to locking pin/spring locator.

Method for Assembly of New Lock Barrel

1. Using kit JLM 2042 arrange discs and spacers in key code order – refer to Fig.5.

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2. Fit plastic seal onto lock barrel at position A, Fig.7.

3. Assemble disc and spacer washers into lock barrel in key cut order. Using smear of lubricating grease supplied in kit, apply it to each face of disc/spacers. Align steel roller with slots (Fig.7). It is important that only the lubricating grease supplied in the kit is to be used.

4. Fit shutter housing into lock barrel and insert retaining key (A, Fig.8).

5. Fit pivot spring and pin into shutter housing whilst tensioning the spring as shown at C, Fig.8.

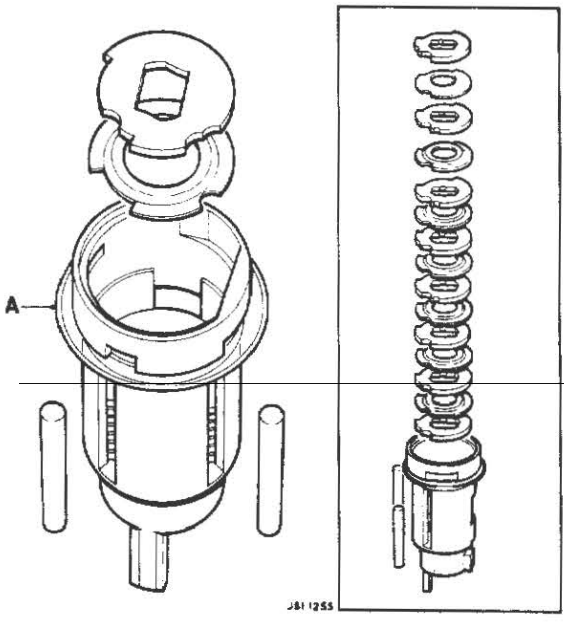

FIG 7

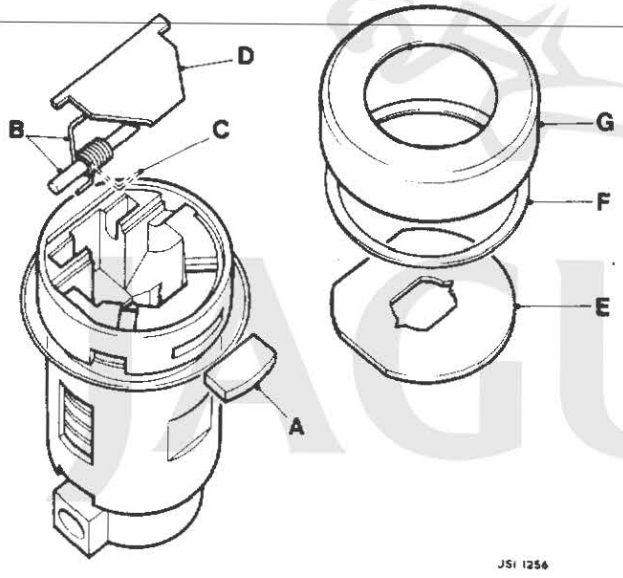

FIG 8

6. Locate the shutter flap (D, Fig.8) into the shutter housing; fit the closing plate (E, Fig.8).

7. Insert plastic tension ring (F, Fig.8) into the lock barrel retaining cover; fit cover (G, Fig.8) over the lock barrel.

8. With the aid of another workshop operative, hold the lock barrel assembly on a block of hardwood; using a flat end punch and hammer, peen the edge of the cover into the three slots in the lock barrel rim (Fig.9).

9. Align disc and spacer washers using key.

10. Apply lubricating grease to the steel roller and fit into the lock barrel at positions shown in Fig.7.

11. Apply lubricating grease to detent plunger and spring (A, Fig.10); fit into lock barrel.

12. Lubricate and fit steel spring clip into lock barrel housing (B, Fig.10).

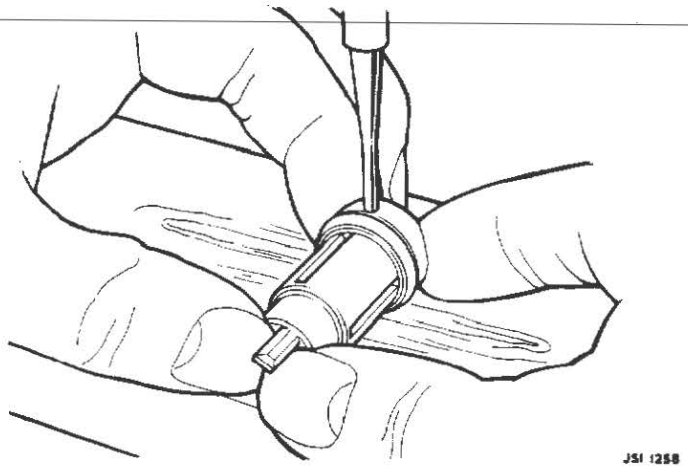

FIG 9

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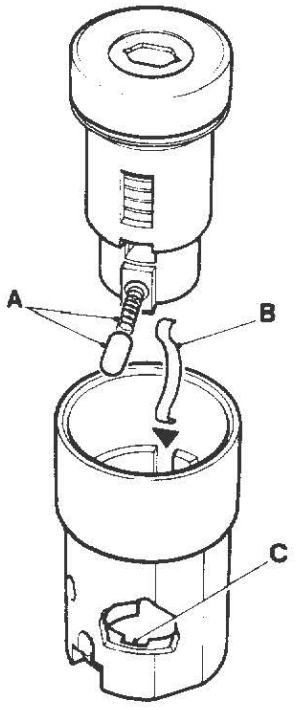

FIG 10

13. Finally align and fit lock barrel into the lock barrel housing. This is achieved by aligning the detent plunger with the slot and pushing fully home until the plunger engages into the rear of the housing (C, Fig.10).

14. Check for correct operation of the lock using the boot key. Finally refit the lock into the boot and test for correct operation.

WARRANTY CLAIMS PROCEDURE

Claims should be submitted quoting the following applicable codes:

Front Doors for Jaguar/Sovereign models

Complaint code R.H. door – 8BGN; L.H. door – 8EGN.
S.R.O. – 76–92–01
Labour time allowance is 0.95 hours.

Front Doors for Daimler/VDP models

Complaint code R.H. door – 8BGN; L.H. door – 8EGN.
S.R.O. – 76–92–01/50
Labour time allowance is 1.00 hours.

Boot Lock barrel repair – All models

Complaint code – 9DKN
S.R.O. – 76–92–02
Labour time allowance is 0.55 hours.

APPENDIX 'A'

Tibbe Front Door Lock Repair Kits

Part Numbers; JLM 2039 – Right–hand door lock repair kit.
JLM 2040 – Left–hand door lock repair kit.

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Kit Contents:

ITEM NUMBER	DESCRIPTION	QUANTITY
1	BARREL (LH/RH)	1
2	SPACER (SPRING)	1
3	SPACER	6
4	DISC 1	4
5	DISC 2	4
6	DISC 3	4
7	STEEL ROLLER	1
8	BUSH (LINKAGE ROD RETAINER)	1
9	LEVER	1
10	LEVER RETURN SPRING	1
11	LEVER ASSEMBLY CIRCLIP	1
12	PLASTIC SPACER	1
13	CIRCLIP – BARREL RETENTION	1
14	SHUTTER ASSEMBLY	1

APPENDIX 'B'

Tibbe Boot Lock Repair Kits

Part Number; JLM 2042 – Boot lock repair kit.

Kit Contents:

ITEM	DESCRIPTION	QUANTITY
1	BARREL	1
2	SPRING SPACER	1
3	SPACER	6
4	DISC 1	4
5	DISC 2	4
6	DISC 3	4
7	STEEL ROLLER	2
8	PLASTIC SEAL	1
9	BARREL HOUSING	1
10	DETENT PLUNGER	1
11	DETENT PLUNGER SPRING	1
12	SHUTTER HOUSING	1
13	PIVOT PIN	1
14	SPRING	1
15	SHUTTER	1
16	SHUTTER CLOSING PLATE	1
17	RETENTION KEY	1
18	PLASTIC TENSION RING	1
19	STEEL RETAINING COVER	1

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APPENDIX 'C'

Part No's for ignition and glove box replacement locks are:

Part No ignition lock JLM 1983.

Part No fascia glove box lock BEC 1395

The ordering procedure will be advised separately by Jaguar Parts Division.

XJ6 2.9 & 4.0 / XJS / SIII V12 **ITEM: 28**

80 HEATER MATRIX ASSEMBLY

Recent investigations into heater matrix leakage problems have identified a common fatigue pattern, resulting in the development of fractures around the side and tube collector plates.

Design modifications to address this problem have been introduced and assured from VINs:–

595079 – XJ6 2.9 / 4.0
164472 – XJS
482183 – Series III V12

XJ6 2.9 / 4.0 & XJS **ITEM: 29**

82 AIR CONDITIONING REFRIGERATION GAS CHARGE

Numerous reports have recently been received concerning vehicles arriving at Dealer Pre–Delivery Inspection (PDI) with a low state of gas charge or the system totally evacuated.

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It has been necessary due to the number of vehicles highlighted, to introduce additional inspection and leak check stages during the production build sequence.

Integrity of the air conditioning system has now been assured from VINs:

616106 – XJ6 2.9/4.0

171329 – XJS 3.6/V12

XJ6 **ITEM: 30**

86 REAR FOG LAMP LENS

As a running change on 1990 Model Year saloons, a new 'camouflaged' dot matrix fog / reflex lamp lens has been introduced to replace the clear lens previously fitted.

This new lens has been introduced on all model variants from VIN 614671.

Under no circumstances should lamp lenses / assemblies be inter–mixed on the same car (unless as a market requirement) where a replacement is required, since continuity of style must be maintained.

Units can be identified visually as follows:–

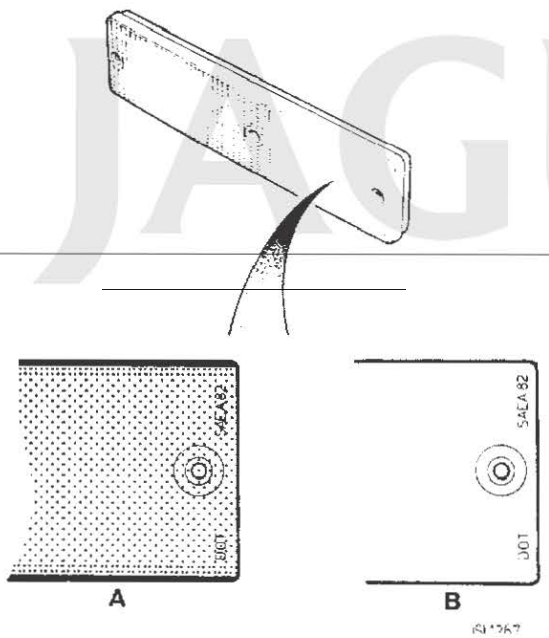

Fig 1 (A) New dot matrix camouflage style:
Lens Part No.
JLM 2146 – Fog / Reflex
JLM 2147 – Non Fog

Assy Part No.
DBC 5990 – Fog / Reflex
DBC 5991 – Non Fog

Fig 1 (B) Clear Style:
Lens Part No.
JLM 1059 – Fog / Reflex
JLM 1060 – Non Fog

Assy. Part No.
DBC 2594 – Fog / Reflex
DBC 2595 – Non Fog

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Service Bulletin

JAGUAR

Daimler

As a result of additional information received following the issue of Service Bulletin JD 06/90, it has been decided to re–issue pages: 3/4, 5/6, 15/16 and 17/18.

These amended pages are included at the end of this Bulletin and are clearly identified as "Issue 2".

Would Service Personnel concerned please remove and destroy the original copies and replace them with the amended pages.

XJ6 2.9 / 3.6 & 4.0 **ITEM: 31**

00 POLICY ITEMS
COMPLAINT CODES – GEARBOX LINEAR / ROTARY SWITCHES

Investigation into recent warranty claims for gear selector linear switch (XJ6 2.9) and rotary switch (XJ6 4.0) problems have been confused as a result of dealers using the incorrect warranty codes.

Note: for XJ6 2.9 and 3.6 litre gear selector linear switch problems use 7HX, for XJ6 4.0 litre rotary switch problems use 4GH.

XJS/SIII **ITEM: 32**

57 PAS STEERING RACK MOUNTING BUSHES

Service tooling JD 165 has been introduced to aid replacement of the steering rack assembly mounting bushes fitted to XJS and SIII models. The tooling eliminates the need for rack removal in performing this task.

The tooling is shown in Fig 1. Standard mounting bushes can be removed and replaced using tooling items 1, 2 and 3. Sport mounting bushes fitted to some XJS models are removed using tooling item 4 in conjunction with items 1 and 2.

Sport type mounting bushes can be identified by their steel faced thrust washers. Standard mounting bushes are fitted in conjunction with rubber faced thrust washers.

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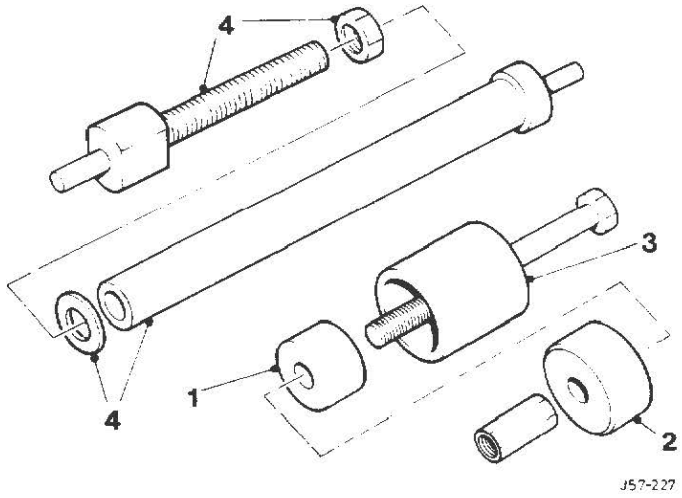

FIG 1

PROCEDURE

Raise and support the front of the vehicle.

Turn the ignition key to prevent steering lock engagement.

Position adhesive tape along the top edge of the steering column upper cowl and along the steering wheel boss.

Apply and shape a small amount of plasticine to the shoulder of the steering rack centralising pin 18G1466. This will prevent oil loss when the pin is fitted.

Remove the centralising pin access plug from the steering rack and insert the pin. With help from another person rotate the steering wheel until the pin is fully engaged (Fig 2).

Mark the position of the steering wheel on the adhesive tape.

Remove the pin and refit the access plug.

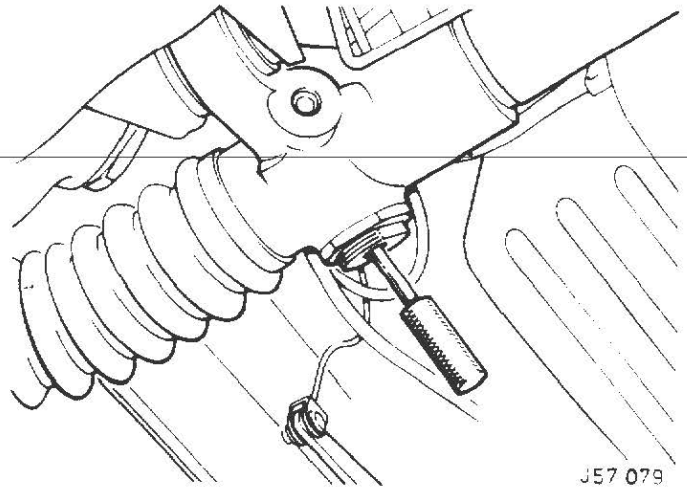

FIG 2

Remove the securing nut and bolt from the steering column lower universal joint. On catalyst vehicles, space is extremely confined.

Release the joint from the steering rack.

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Undo and remove the rack to crossbeam lower and upper securing nuts and bolts.

Displace and remove the rack heatshields as necessary.

Remove the non-pinion side mounting bush to crossbeam shims and lower the rack assembly.

Remove and discard the rubber faced thrust washers of the standard lower mounting bushes.

REMOVAL OF STANDARD MOUNTING BUSHES

Position tool body item 3 to the inside face of the mounting bush housing. Insert the draw bolt through the tool body and mounting bush.

Fit tool item 1, washer and pillar nut to the outer face of the mounting bush.

Tighten the bolt to draw the mounting bush into the tool body (Fig 3). Repeat the procedure for the remaining bushes.

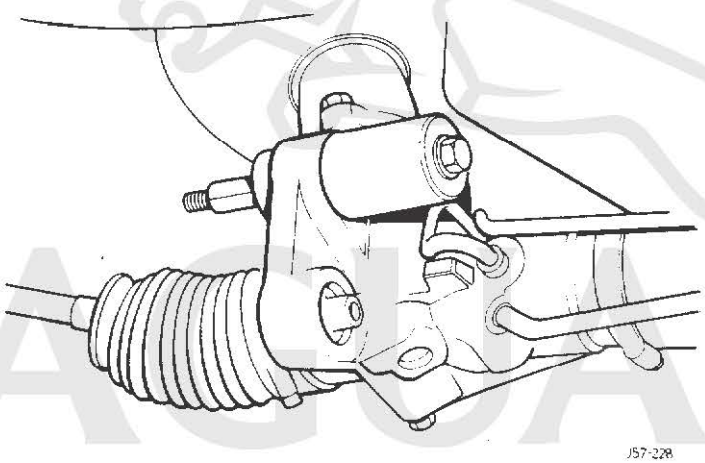

FIG 3

REMOVAL OF SPORT MOUNTING BUSHES

Assemble tool items 1 and 2 to either end of the sport bush removal tool item 4.

Position the tooling between the lower sport mounting bushes, locate the tool diameters to the mounting bush and mounting bush housing.

Supporting the tool, turn the nut clockwise to jack the bush outward (Fig 4).

Care and discretion should be exercised regarding the stresses exerted during bush removal.

Remove the bush, rotate the tooling and repeat the procedure for the remaining sport bush.

Note, sport bushes are only fitted at the lower mounting positions.

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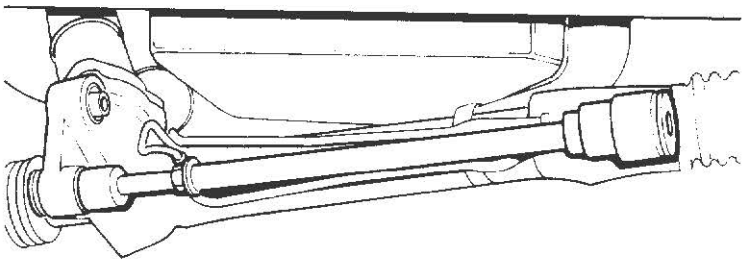


J57-229

FIG 4

REFITTING MOUNTING BUSHES

Clean mounting bush housings and crossbeam mounting locations.

Note, sport mounting bushes are to be secured in position with Loctite 601. Clean the outside diameter of these bushes prior to application.

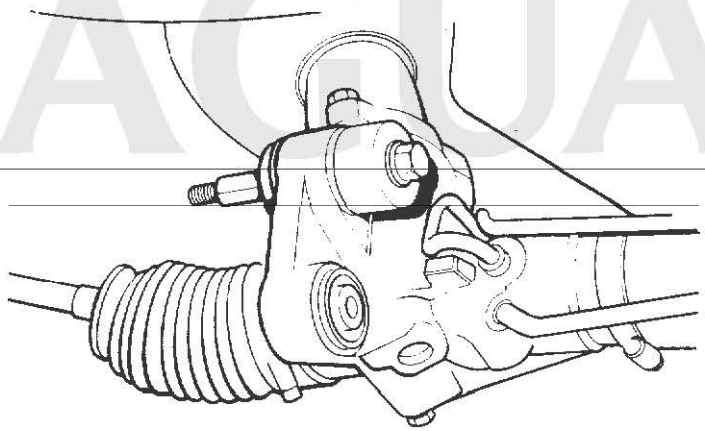
Position tool item 2 to the inside face of the bush housing.

Position and align mounting bush to the outside face of the bush housing.

Fit tool item 1, pass the draw bolt through the assembly and fit the pillar nut.

Tighten the draw bolt to fully seat the bush into housing (Fig 5).

Repeat the procedure for the remaining bushes.



J57-230

FIG 5

On standard mounting bushes, fit the new rubber faced thrust washers to the outer faces of the lower bushes.

Raise the rack assembly and align the crossbeam mountings. Fit suitable pegs to the mounting positions to hold the rack in place.

Remove the peg from the passenger's side, fit the shims as necessary between the rack lower mounting bush and the crossbeam. Fit but do not tighten the rack mounting bolt and nut.

Remove the peg from the pinion side, fit but do not tighten the rack mounting bolt and nut.

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Fit and align the rack heatshields as necessary.

Fit but do not tighten the upper rack mounting bolt and nut.

Align the rack assembly with crossbeam base and finally tighten the securing bolts.

Reposition the steering column and steering rack centrally using the centralising pin as detailed and engage and fully seat the lower universal joint to the rack spline.

Fit and tighten pinch bolt and nut.

Lower the vehicle.

XJS & S.III **ITEM: 33**

57 POWER STEERING RACK MOUNTING BUSHES

A new Service Tool JD 165 has been developed to enable the steering rack mounting bushes to be replaced without disconnecting the hydraulic pipes and track rod ends.

The following service Repair Operations are now available:-

		3.6	5.3 RHD	5.3 LHD	5.3 LHD CAT
XJS					
57-10-30	Power Steering Rack Mounting Bushes - Renew	1.15	1.30	1.35	1.75
57-10-31	Sports Pack Power Steering Rack Mounting Bushes - Renew	1.20	1.35	1.40	1.80
S.III					
57-10-30	Power Steering Rack Mounting Bushes - Renew		1.30	1.35	1.75

NOTE: No other Repair Times are affected.

XJ6 **ITEM: 34**

82 AIR CONDITIONING / HEATER MICROPROCESSOR

To cater for changes to the air conditioning/heater water temperature switch operation (ref: Service Bulletin JD 19/89 Item 93) and the introduction of a revised in car sensor aspiration system (ref: Service Bulletin JD 03/90 Item 12), circuitry changes within the air conditioning / heater microprocessor have been necessary, resulting in specific microprocessors being required to cover the vehicle ranges affected.

IN THE EVENT THAT REPLACEMENT OF A MICROPROCESSOR OR WATER TEMPERATURE SWITCH IS REQUIRED, PLEASE REFER TO THE FOLLOWING LIST TO ENSURE THAT THE CORRECT PART NUMBER IS ORDERED AND FITTED.

Dealers who have recently received owner complaints with respect to the following symptoms and have been unsuccessful in rectifying the situation, should ensure the appropriate microprocessor is fitted.

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1 No fan speed response when either Low, Normal or High is selected, although the defrost mode operates normally.

2 High speed fan in low mode slows down when Normal is selected.

3 Control panel illumination out of sequence or flashing.

VIN RANGE	PART NO	DESCRIPTION	PART NO	DESCRIPTION
Pre 1990 MY 500001 to 594576	JLM 2211	Microprocessor (Compatible with)	JLM 763	Red Water Temperature Switch

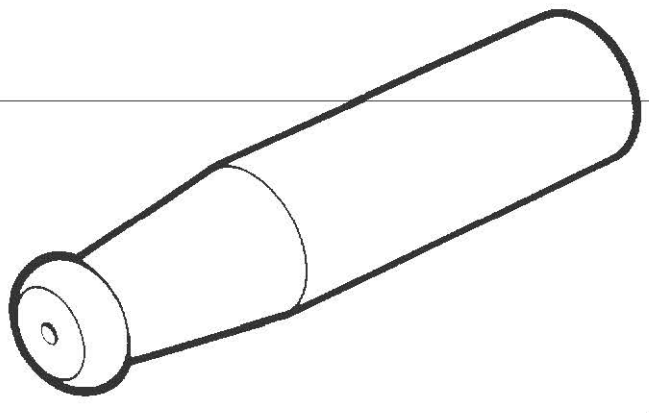
NOTE: IF MICROPROCESSOR JLM 2211 IS FITTED TO VEHICLES BETWEEN VIN RANGE 565650 TO 594576 THE 560 OHM RESISTOR FITTED TO THE WATER TEMPERATURE SWITCH SHOULD BE REMOVED.

VIN RANGE	PART NO	DESCRIPTION	PART NO	DESCRIPTION
1990 MY Up to Sensor Enhancement 594577 to 605856 – A/C 607111 – Heater	JLM 2212	Microprocessor (Compatible with)	JLM 2121	Black Water Temperature Switch
1990 MY Sensor Enhancement 605857 – A/C 607111 – Heater (Onwards)	DBC 5722	Microprocessor (Compatible with)	JLM 2121	Black Water Temperature Switch

ALL MODELS FITTED WITH SANDEN COMPRESSOR ITEM: 35

82/99 NEW OIL SEAL PROTECTOR TOOL

A new oil seal protector tool, JD 164, should now be used when changing the oil seal on all models fitted with the Sanden compressor.



J11 101

FIG 1

The new tool, JD 164 (see Fig 1) replaces the original tool JD 148 and is used in precisely the same manner.

Full instructions for renewing a compressor seal are given in the respective Service Manuals under the following Operation No: 82.10.11.

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Service Bulletin

JAGUAR Daimler

DATE: APRIL 1991

REF: JD 03/91

XJ6 **ITEM: 16**

03 REPAIR OPERATION TIMES

A printing error has been highlighted in the XJ6 Repair Time Schedule.

86–55–35 Door Lock Infra Red Receiver Module Repair Time should read:–
"0.35 hours" and not "0.10 hours".

In addition to this amendment, would Dealers please add:–
"86–55–35/01 as 86–55–35 (less JDS allowance) 0.10 hours".

No other Repair Times are affected.

ALL MODELS **ITEM: 17**

57 STEERING GEOMETRY DATA

This Bulletin item has been compiled to assist workshop personnel, by providing a complete steering / suspension geometry data sheet for current models:–

STEERING & SUSPENSION GEOMETRY DATA

MODEL	FRONT				REAR		
	RIDE HEIGHT	TOE	CASTOR	CAMBER	RIDE HEIGHT	TOE	CAMBER
ALL XJ6 SALOONS	6" (153mm) UNDER BEAM	TOE IN PARALLEL TO 1/16" (1.6mm)	+ 3.5° TO + 4.5°	0° TO - 0.5°	DRIVE SHAFTS HORIZONTAL 6.3" (160mm) UNDER REAR EDGE OF 'A' FRAME	TOE IN PARALLEL TO 1/16" (1.6mm)	- 0.5° TO - 1.0°
ALL XJS VARIANTS	6" (153mm) UNDER BEAM	TOE IN PARALLEL TO 1/8" (3.2mm)	+ 3.25° TO + 3.75°	- 0.25° TO - 0.75°	DRIVE SHAFTS HORIZONTAL 6.4" (162mm) UNDER CRADLE	PARALLEL TO ± 1/32" (0.8mm)	- 0.5° TO - 1.0°
S.III V12	6" (153mm) UNDER BEAM	TOE IN PARALLEL TO 1/8" (3.2mm)	+ 3.25° TO + 3.75°	- 0.25° TO - 0.75°	DRIVE SHAFTS HORIZONTAL 6.4" (162mm) UNDER CRADLE	PARALLEL TO ± 1/32" (0.8mm)	- 0.5° TO - 1.0°
LIMOUSINE	SPECIAL TOOLS USED TO SET FRONT RIDE HEIGHT	TOE IN 1/8" (3.2mm)	- 0.5° TO + 0.5°	0° TO - 1.0°	SPECIAL TOOLS USED TO SET REAR RIDE HEIGHT	PARALLEL TO ± 1/32" (0.8mm)	- 0.5° TO - 1.0°

Note: Please ensure the relevant service tools are used whenever the steering geometry is checked.

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XJ6 **ITEM: 18**

60 FRONT SUSPENSION LOWER WISHBONE BUSHES

To extend the service life of lower wishbone bushes, a revised bush has been introduced. Part numbers are unchanged. Parts stock is to the latest condition. Introduction VIN: 637400.

XJ6 **ITEM: 19**

64 REAR SHOCK ABSORBERS

To overcome reports of rear shock absorber failure, a revised unit has been introduced.

Introduction VIN – 631228
Revised Part No. – CCC 3538

Replacement Policy

Front and rear shock absorbers may be changed individually provided that the following criteria are satisfied:–

1 The remaining shock absorber has covered less than 25,000 miles (40,000 kms)

2 The replacement shock absorber has the same part number as that of the shock absorber fitted to the vehicle.

XJ6 **ITEM: 20**

64 REAR SUSPENSION 'A' FRAME MOUNTING BUSHES

To extend the service life of rear suspension 'A' frame mounting bushes, a revised bush as been introduced. Part numbers remain unchanged. All parts in stock are to the latest condition. Introduction VIN: 636200.

XJ6 **ITEM: 21**

70 BRAKE DISC

With the introduction of the 1990 MY XJ6 models, changes were made to the brake disc dimensions. Disc dimensions are as specified in the following table:–

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MODEL		DIAMETER	NEW THICKNESS	MINIMUM THICKNESS	MAXIMUM DISC RUNOUT	MAXIMUM THICK / THIN VARIATION
XJ6 (90 MY ON)	Front Disc	291.0 to 290.8 mm	28.0 to 28.5 mm	27.0mm	0.10mm	0.01mm
	Rear Disc	295.0 to 294.8 mm	10.0 to 09.5 mm	8.8mm	0.10mm	0.01mm
XJ6 (Pre 90 MY)	Front Disc	295.0 to 294.5 mm	22.5 to 22.0 mm	21.0mm	0.10mm	0.01mm
	Rear Disc	278.1 to 277.9 mm	10.0 to 09.5 mm	8.8mm	0.10mm	0.01mm

Note: Maximum rear handbrake drum diameter – 181mm.

Would Dealers please note that Jaguar Cars does not recommend the re-grinding of discs and once the minimum disc thickness is reached, the disc should be changed. Please also note that grooved discs are NOT detrimental to the operation of the brakes.

ALL MODELS — ITEM: 22

76 P.D.I. LABEL REMOVER

Since December 1990, all cars despatched have a new system of windscreen label fixing. A strip of clear film with special adhesive is now placed at the top portion of the windscreen and all labels are affixed to the clear film. Hence, at PDI, the clear film can be removed and all labels will be removed at the same time.

Occasionally, residue windscreen adhesive or hardened bird lime may be difficult to remove. Never use a metal scraper to remove these substances. ALWAYS USE A PLASTIC SCRAPER.

XJ6 — ITEM: 23

76 CLOTH COVERED SEATS – WOOL FIBRE MIGRATION

Some incidence of cloth (wool tweed) covered seats showing wool fibres "balling / pilling" has been recognised on XJ6 saloons.

This effect which is usually experienced between approximately 1 to 3 months in service, is NOT premature wear of the seat cloth; it is actually caused by surplus wool fibres which migrate out of the cloth when occupants' clothing comes into abrasive contact with the seat cloth. The effect is further enhanced by fibres from occupants' clothing combining with these surplus seat cloth fibres.

To re-address this issue, Jaguar, in conjunction with the supplier of the seat fabric, is developing a shorter woven fibre which should not exhibit fibre migration. The introduction of this modified cloth will be indicated in a future Service Bulletin issue.

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During the intervening period up to the introduction of this modified cloth, all seat covers identified as suffering from "balling / pilling" should have these fibres removed by carrying out the following rectification:–

1) Remove all visible loose fibres from the seat covers by hand.

2) Clean Jaguar covers using Jaguar cloth upholstery cleaning agent available through Parts Operations. Follow the directions for use as shown on the cleaning agent dispenser, Part No. JLM 9870 refers.

N.B. DO NOT REPLACE SEAT COVERS TO OVERCOME "BALLING / PILLING".

XJS / XJ6 **ITEM: 24**

82 AIR CONDITIONING CONDENSATE DRAIN TUBES

Should water appear in the footwells of vehicles within the following Vin range XJ6 – 553357 to 611400 and XJS – 145000 to 169700 then the following modification may be carried out. NOTE: The tool to carry out this modification is JD 178 Condensate Drain Hole Tool. The tool consists of two parts, an oilite bush which acts as a guide for the burr, which is used as the cutting tool.

XJ6

1. Remove the driver's side dash liner.
2. Remove the passenger's side dash liner.
3. Undo and remove the footwell vent securing screws and remove the footwell vents.
4. Reposition the carpet from the transmission tunnel for access to the drain tube.
5. Remove the drain tube assembly (1 Fig. 1) from the air con drain stub pipe (2 Fig. 1).
6. Fully seat the cutting tool guide to the air con stub pipe (3 Fig 1).
7. Using the 6mm cutting tool, carefully cut a hole in the air con baffle plate.
8. Remove the tool guide.
9. Clean the stub pipe.
10. Fully seat the drain tube to the air con stub pipe.
11. Reposition the transmission tunnel carpet.
12. Repeat the above procedure for the other side.
13. Fit and align the footwell vents.
14. Fit and tighten the securing screws.
15. Refit the dash liners.

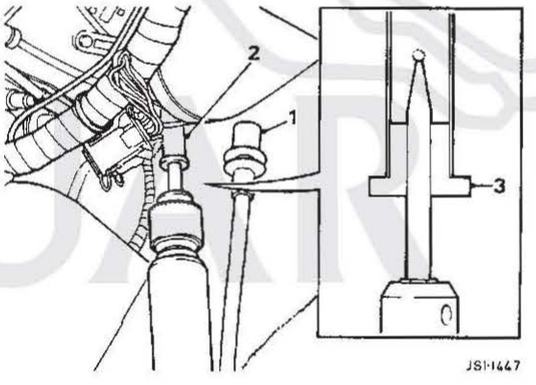

FIG. 1

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XJS

1. Remove the driver's side dash liner.
2. Remove the passenger's side dash liner.
3. Undo and remove the console side casing vent screws.
4. Remove the vents and side casings.
5. Remove the air con unit outlet duct securing screws and remove the duct.
6. Reposition the carpet from the transmission tunnel for access to the drain tube.
7. Reposition the vehicle harness for access.
8. Displace the drain tube from the transmission tunnel grommet.

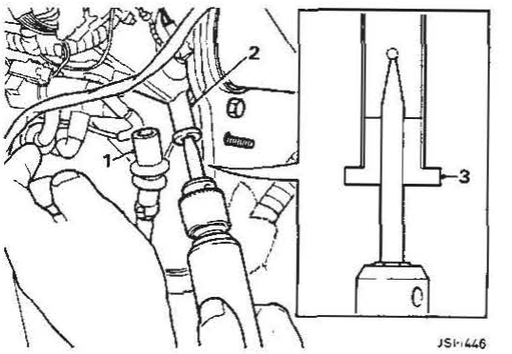

FIG. 2

9. Remove the drain tube assembly (1 Fig. 2) from the air con drain stub pipe (2 Fig. 2).
10. Fully seat the cutting tool guide to the air con stub pipe (3 Fig. 2).
11. Using the 6mm cutting tool, carefully cut a hole in the air con baffle plate.
12. Remove the tool guide and clean the stub pipe.
13. Fit and fully seat the drain tube to the air con stub pipe.
14. Reposition the tube through the transmission tunnel grommet.
15. Fit and align the outlet duct to the air con unit.
16. Fit and tighten the securing screws.
17. Reposition the harness and the transmission tunnel carpet.
18. Repeat the above procedure for the remaining side.
19. Refit the dash liners.
20. Fit and align the console side casings.
21. Fit and align the outlet vents.
22. Fit and tighten the securing screws.

WARRANTY CLAIMS

Warranty claims should be submitted quoting the following:-

Complaint Code: 7STQ
S.R.O. time 1.00 hr (XJS), 0.45 hr (XJ6)
S.R.O. number 82-91-10

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XJ6 / S.III V12 **ITEM: 25**

86 COMPACT DISC CD PLAYER FAULT CODES

In the event of customers complaining of compact disc player malfunction, the relevant CD error message will be displayed on the radio digital display. The following table gives a fault diagnosis for each error message that may be displayed.

INDICATION	CAUSE	SOLUTION
E-01	Disc–change malfunction.	Replace the CD player. Refer to Warranty Policy procedure if the unit is covered by manufacturer's warranty.
E-02	Disc is in player mechanism.	Press the magazine eject button, and insert an empty magazine.
E-03 E-04 E-05	Disc–change malfunction.	If the code disappears within a few seconds, the unit is functioning correctly. If the code remains illuminated, replace the CD Player. Refer to Warranty Policy procedure if the unit is covered by manufacturer's warranty.
E-06	Disc–change malfunction.	Press the magazine eject button and pull out the magazine. Check that the error indication is extinguished then operate the function again. If the magazine cannot be pulled out, replace the CD Player. Refer to Warranty Policy procedure if the unit is covered by manufacturer's warranty.
E-07	Magazine ejection impossible.	Press the magazine eject button. If the magazine does not eject, replace the CD Player. Refer to Warranty Policy procedure if the unit is covered by manufacturer's warranty.
E-30	High temperature.	The error message will extinguish when the temperature returns to the operation range.
EEEE	Misconnection or disconnection of the CD changer.	Check connection between CD changer and control unit.
- - - -	No CD magazine in the CD changer.	Insert the CD magazine.
2- - -	No CD at No. 2 pocket of CD magazine.	Insert a CD into the No. 2 pocket of CD magazine.

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ALL MODELS (UK MARKET ONLY) **ITEM: 26**

86 ALPINE RADIO RDS SYSTEM

This Bulletin Item is an explanation of the capabilities and operational instructions for the Radio Data System (RDS). This system is primarily intended for use within the United Kingdom but, as there are some aspects of the broadcast information system transmitted in most European countries, these explanatory notes will also be relevant to such territories.

RADIO DATA SYSTEM (RDS)

The Jaguar radio is equipped with an advanced Radio Data System decoder to assist the driver in finding and staying tuned to a chosen radio station. This system enables the radio to pick up inaudible signals transmitted on the FM wave band which permit automatic programme tuning, display of the stations identity name and up–to–the–minute traffic information.

RDS Programme Service Name

The RDS system displays the station name rather than the frequency. This information is sent with all the other RDS data and is known as the 'Programme Service Name' It is shown on the radio display in eight characters. The Programme Service Name feature also identifies network 'splits', when different programmes are being broadcast on FM and Medium Wave or Long Wave.

For example: The normal display for Radio 4 is 'BBC R4' but when there are educational programmes on Long Wave the display will show 'BBC R4ED'.

RDS Auto–Tuning

RDS is radio's first fully automatic tuning system. Its benefit is that it tunes to a signal not a frequency. RDS radio will search out the strongest signal available and automatically switch frequencies as necessary.

To broadcast FM radio services throughout the UK, the BBC uses over 100 transmitters and 22 different frequencies. So as you travel you move out of range of one transmitter into the influence of another. Without RDS the driver, on a long journey, has to retune manually several times; with the Jaguar RDS radio system retuning is automatic.

RDS Travel Service

Although there is a wide range of travel information available from National and Local Radio, a driver only requires traffic information relevant to the locality. RDS provides this precise information, automatically. As soon as the authorities learn of a traffic problem they inform the nearest local radio station, who then signal the BBC and IBA central computers. The traffic news is then re–broadcast by the BBC or IBA transmitters in the relevant area. This broadcast will interrupt a radio programme, cassette tape or CD play on all radios with the RDS feature, provided Traffic Programme 'TP' has been selected. When the traffic news flash is over, the system automatically switches back to the driver's original listening choice.

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RDS Operation

1. To activate, press the RDS button on the radio and hold for at least 2 seconds when a 'beep' will be heard and a red light will show on the button. The radio then gathers RDS information and displays the Programme Service name in place of the frequency, provided the programme chosen is an RDS station. If it is not an RDS station, the radio will automatically retune to the strongest RDS station it can find.

2. To select Traffic Programme, press the RDS momentarily, TP will appear on the display. If the radio is not tuned to an FM station with RDS traffic information, it will search for one that is. If no RDS TP station is within range, the TP mode will cancel and the TP indicator will disappear from the display.

RDS Traffic Programme Stations

At the present time only a few RDS stations carry the Traffic Information facility. However, an increasing number of RDS stations are being equipped to provide TP data. The existing RDS TP stations are:-

BBC Radio Stations	IBA Radio Stations
Radio West Midlands	Power FM (Southampton)
Greater London Radio	Key 103 (Manchester)
Radio Bedfordshire	L.B.C. (London)
Radio Kent	
Radio Essex	

Auto Memory (A-Mem)

In normal operation, the Auto Memory (A-Mem) will programme the six strongest stations on the selected wave band into the presets 1 to 6. When RDS is selected and the A-Mem function operated, the radio will programme the six strongest RDS stations into the presets. If there are less than six RDS stations in range, the latter of the presets will display 'No FM'. Similarly, if TP is used with A-Mem activated, the radio will only programme the six strongest RDS stations carrying traffic information. This means, at the present time, that most of the presets will display 'No FM'.

NOTE: When used correctly, RDS and TP are very effective additional features to the car radio capability. However, if these facilities are used without full understanding, they may cause a situation confusing to the operator. This is less likely to occur as more RDS radio stations become available.

If drivers are not fully familiar with the RDS and TP systems they should be advised to switch them off until they can be satisfactorily instructed in the proper use.

When the RDS and TP are switched off, the red light on the RDS button will go out, and the 'TP' indicator will disappear from the display.

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RDS TROUBLE-SHOOTING GUIDE

INCORRECT RESPONSE FROM RDS	REASON AND RECTIFICATION
Radio does not display programme service name	Press RDS button for 2 seconds, the red light on the button will come on. If programme service still does not appear, the radio station selected is not an RDS station. The radio will then retune to the strongest station it can find. Note: This may not be the desired station; if not de-select RDS.
Radio keeps searching for another station but returns to original station selected	RDS button is pressed but no RDS station found due to non-availability of, or insufficient signal strength, to receive RDS data. Radio will continue search every minute until RDS station found. To stop this, de-select RDS by holding button for 2 seconds.
Radio retunes to another station even though station was previously an RDS station.	Radio has lost reception of the RDS data due to vehicle moving out of transmitter range, or loss of signal owing to being in a tunnel, under a garage forecourt canopy or similar shielding. If the latter is the case, wait until the vehicle is clear of the shielding then retune to the original station. There is a 45 second delay before retuning occurs.
Upon operating the A-Mem, most or all of the presets display 'No FM' when pressed.	The radio cannot find six FM stations, or if RDS is selected, the radio cannot find six RDS FM stations. Similarly, if TP has been selected then the radio is unable to find RDS stations providing traffic information. If this occurs, switch off the TP function.
Upon pressing the TP button, the radio retunes to another station.	The station selected does not have traffic information facility and will retune to one that does. If it cannot find one it will automatically switch off TP mode and retune to the original station. This means until many more stations have RDS TP services, it may not be possible to listen to a chosen station and receive traffic news when in radio mode.
Whilst in TP mode the radio retunes.	The signal of the station selected has become too weak to receive the TP identification data. The radio will retune to another TP station. If none available the radio will turn off TP function.
Radio is searching for a station continuously.	Radio cannot find any stations. Allow the radio to make two full sweeps of the wave band. If it continues to search, check that the aerial cable is plugged in at radio and aerial connections.
Radio starts retuning.	Check that the RDS button has not been accidentally pressed during the last 45 second (TP indicator will show on display).

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XJ6 2.9 / 3.6 **ITEM 26**

88 FUEL TANK ELEMENT

Fuel tank element DBC 4735 has been superseded by DBC 10284 for all XJ6 models up to the introduction of 1991 MY. The change has been required because of a rationalisation of terminal housing mouldings introduced by the supplier.

Interchangeability is unaffected.

DBC 10284 will become effective when stock of DBC 4735 held by Parts Operations is exhausted.

XJS CONVERTIBLE **ITEM: 27**

88 FUEL TANK ELEMENT

Owing to supplier tooling modifications, minor changes have been required to the fuel tank sender unit, resulting in Part No. DAC 10183 superseding Part No. DAC 6103 as a running change during 1990 MY. Fuel tank assemblies equipped with the latest element are identified by a red spot on the rear face of the sender unit.

Part No. DAC 10183 is fully interchangeable with Part No. DAC 6103. However, will Dealers please note that the connections for the WARNING LIGHT and the EARTH have been reversed.

The warning light terminal is now at the bottom and the earth terminal is now in the middle.

Harness Identification and Colour Code			DAC 6103	DAC 10183
+ V Supply	G / O	Green / Orange	Top	Top
Earth	B	Black	Bottom	Middle
Warning Light	N / K	Brown / Pink	Middle	Bottom

Note: Parts Operations now only stock the latest condition element, Part No. DAC 10183.

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